DEFENSE BUSINESS OPERATIONS FUND - NAVY

FY 1996/1997 BIENNIAL BUDGET ESTIMATES
OPERATING AND CAPITAL BUDGETS



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DEPARTMENT OF THE NAVY
DEFENSE BUSINESS OPERATIONS FUND
FY 1996 AND FY 1997 BUDGET ESTIMATES

The Department of the Navy has long operated a significant number of organic commercial and industrial facilities under revolving fund concepts to encourage these activities to function in a business like and efficient manner and to provide the flexibility needed to manage these functions under changing workload conditions. The Department of the Navy comprises the largest military component of the Defense Business Operations Fund (DBOF), with over half of its civilian personnel employed in DBOF activities. These DBOF activities include:

Supply Operations: Consists of three business areas. The Supply Management business area performs inventory management functions for shipboard and aviation repairables and consumables. Distribution Depots provide management of overseas Fleet Industrial Supply Centers. Logistic Support Activities perform miscellaneous support functions such as contract management reviews, port services, and large and small procurement for ashore and fleet commanders. Beginning in FY 1996 the Distribution Depot business area will be combined into the Supply Management business area.

Depot Maintenance:

Shipyards: Consists of eight shipyards, three of which are in a closing status as a result of Base Realignment and Closure Decisions. Civilian workyear reductions from year to year of 14 percent in FY 1995, 24 percent in FY 1996 and 7 percent in FY 1997 reflect the closures and the overall reduction in workload.

Aviation Depots: Consists of six aviation depots, three of which are in a closing status. Excluding BRAC, workload declines 6.5 percent in FY 1996 and a further 11 percent in FY 1997. End strength declines 12 percent in FY 1996 and 7 percent in FY 1997.

Weapons Stations: Consists of five weapons stations. This budget reflects the establishment of the Naval Ordnance Center, a major management initiative to provide world-wide logistics management of all Navy and Marine Corps ordnance under one organization. In addition, this budget reflects Mobilization costs for wartime contingencies funded from the Operations and Maintenance, Navy account in FY 1995 only. Beginning in FY 1996 these costs will be funded in DBOF rates.

Marine Corps Depots: Consists of one east coast and one west coast depot facility. Workload declines 31 percent in FY 1996 as Desert Storm carryover work and other backlog are completed by the end of FY 1995. Workload declines an additional 8 percent in FY 1997.

Transportation: Consists of the Naval Fleet Auxiliary Force (NFAF) vessels, Special Mission Ships (SMS), and Afloat Prepositioning Force (APF) service unique ships. Common user transportation functions are operated by the U.S. Transportation Command (TRANSCOM).

Research and Development: Consists of four Warfare Centers and two stand-alone laboratories that perform a wide range of research, development, test, evaluation, and engineering support functions. Civilian personnel decline approximately 13 percent through the budget years consistent with the declining workload base.

Information Services: Consists of nine computer and telecommunications activities which provide regional automated information systems services and design support plus the Fleet Material Support Office which provides central design services for supply systems.

Base Support: Consists of ten Public Works Centers supporting major Naval bases throughout the world. The steady workload and civilian staffing decline reflects the impending closure of Public Works Center, San Francisco, CA in FY 1998.

Defense Printing Service: A consolidated DoD business area consisting of Printing Production and Procurement facilities and numerous smaller Reprographic facilities. Significant workload reductions occur over the budget period which cause personnel reductions of 29 percent.

COST OF OPERATIONS

Costs incurred in providing goods and services sold to customers total $22,334 million in FY 1996 and $21,142 million in FY 1997.

(dollars in millions)

	FY 1994	FY 1995	FY 1996	FY 1997
Supply Management	6,373.7	6,976.5	5995.5	5633.7
Distribution Depots	87.6	52.1	0	0
Logistics Support	248.6	225.6	126.0	125.5
Depot Maintenance - Ships	3,749.2	3,287.6	2,442.0	2,325.6
Depot Maintenance - Aircraft	1,961.4	2,017.0	1,886.7	1,408.4
Depot Maintenance - Ordnance	670.4	603.1	551.0	532.5
Depot Maintenance - Other	181.1	192.7	142.1	134.2
Transportation	720 6	1,120.8	1,237.3	1,257.3
Research and Development	7,693.2	7,672.5	7,638.4	7,462.6
Information Services	429.0	205.6	207.7	206.8
Printing Services	413.0	412.0	410.6	411.7
Base Support	1,917.1	1,778.8	1,704.3	1,692.6
Totals	24,444.9	24,544.3	22,334.0	21,142.3

STAFFING LEVELS

Total personnel (both civilian and military) employed at Navy DBOF activities are as follows:

	(end strength in thousands)			
Civilian End Strength	FY 1994	FY 1995	FY 1996	FY 1997
Supply Management	6.6	6.0	7.0	6.7
Distribution Depots	1.3	1.3	0	0
Logistics Support	3.0	2.2	.1	.1
Depot Maintenance - Ships	41.9	34.9	29.5	27.0
Depot Maintenance - Aircraft	17.1	14.8	13.0	12.2
Depot Maintenance - Ordnance	5.9	4.9	4.7	4.4
Depot Maintenance - Other	2.2	2.0	1.8	1.7
Transportation	4.7	4.9	5.4	5.5
Research and Development	53.4	51.2	49.1	46.6
Information Services	2.5	2.2	2.2	2.2
Printing Services	2.4	2.2	2.0	1.7
Base Support	14.7	14.0	13.8	13.4
Total	155.7	140.6	128.6	121.5

	(end strength in thousands			
Military Personnel End Strength	FY 1994	FY 1995	FY 1996	FY 1997
Supply Management	.1	.1	.4	.4
Distribution Depots	.3	.3	0	0
Logistics Support	.2	.2	.2	.2
Depot Maintenance - Ships	.7	.4	.3	.3
Depot Maintenance - Aircraft	.2	.2	.2	.1
Depot Maintenance - Ordnance	.7	.8	.8	.8
Depot Maintenance - Other	0	0	0	0
Transportation	.9	1.1	1.2	1.3
Research and Development	1.1	1.1	1.1	1.0
Information Services	.2	.1	.1	.1
Printing Services	0	0	0	0
Base Support	.1	.1	.1	.1
Total	4.5	4.4	4.4	4.3

(workyears in thousands)

Civilian Workyears	FY 1994	FY 1995	FY 1996	FY 1997
Supply Management	6.7	6.1	7.0	6.7
Distribution Depots	1.1	1.2	-	-
Logistics Support	3.0	2.4	.2	.2
Depot Maintenance - Ships	45.3	38.7	29.5	27.4
Depot Maintenance - Aircraft	17.2	16.5	15.3	12.8
Depot Maintenance - Ordnance	6.2	5.4	4.9	4.6
Depot Maintenance - Other	2.2	2.0	1.8	1.7
Transportation	5.3	5.0	5.2	5.4
Research and Development	54.9	51.9	49.8	47.3
Information Services	3.5	2.2	2.2	2.2
Printing Services	2.6	2.2	2.1	1.8
Base Support	14.1	14.2	13.8	13.5
Total	162.1	147.8	131.8	123.6

(workyears in thousands)

Military Personnel Workyears	FY 1994	FY 1995	FY 1996	FY 1997
Supply Management	.1	.1	.4	.4
Distribution Depots	.3	.3	0	0
Logistics Support	.2	.2	.2	.2
Depot Maintenance - Ships	.7	.4	.3	.3
Depot Maintenance - Aircraft	.2	.2	.2	.1
Depot Maintenance - Ordnance	.6	.6	.9	.9
Depot Maintenance - Other	.0	.0	.0	.0
Transportation	.9	1.1	1.1	1.2
Research and Development	1.5	1.1	1.1	1.0
Information Services	.1	.1	.1	.1
Printing Services	.0	.0	.0	.0
Base Support	.1	.1	.1	.1
Total	4.7	4.2	4.4	4.3

NET OPERATING RESULT

(dollars in millions)

	FY 1994	FY 1995	FY 1996	FY 1997
Supply Management	297.7	-140.4	-429.0	0
Distribution Depots	0	.3	0	0
Logistics Support	0	-.6	.6	0
Depot Maintenance - Ships	-171.9	74.4	689.0	0
Depot Maintenance - Aircraft	-185.3	-9.4	404.8	0
Depot Maintenance - Ordnance	-162.4	130.1	78.3	0
Depot Maintenance - Other	11.1	19.7	9.5	0
Transportation	344.6	-7.6	12.2	0
Research and Development	-335.8	150.2	22.6	0
Information Services	14.4	-13.8	-5.7	0
Printing Services	-7.9	45.3	-8.2	0
Base Support	75.2	45.5	-52.2	0
Total	-120.3	293.5	721.3	0

WORKLOAD

Workload projections for Navy DBOF activities reflect the decline in Navy force structure and attendant support levels. The table below displays year to year percentage changes in direct labor hours or transportation ship days for the industrial business areas. For the supply business area, workload changes are indicated by net sales. The FY 1995 growth in the transportation business area reflects the transfer of Navy-unique Maritime Prepositioning Programs from TRANSCOM (U.S. Transportation Command) DBOF to Navy DBOF and the transition of additional fleet auxiliary ships from mission funded to DBOF funded.

(percent change)

	FY 1996	FY 1997
Supply Management	-6.1%	-4.9%
Depot Maintenance - Ships	-23.3%	-10.6%
Depot Maintenance - Aircraft	-6.5%	-10.8%
Depot Maintenance - Ordnance	-7.6%	-6.0%
Depot Maintenance - Other	-30.9%	-7.7
Transportation (ship per-diem days)	-1.5	3.3%
Research and Development	-3.3%	-4.8%
Information Services	-5..7%	-.1%
Printing Services	-6.1%	-11.9%
Base Support	-1.8%	-2.4%

CUSTOMER RATE CHANGES

Composite rate changes from FY 1995 to FY 1996, and from FY 1996 to FY 1997, which are designed to achieve an accumulated operating result of zero at the end of FY 1996, are as follows:

	(percent change)	
	FY 1996	FY 1997
Supply Management (wholesale)	-22.5%	11.8%
Depot Maintenance - Ships	0.0%	4.9%
Depot Maintenance - Aircraft (composite)	3.3%	
Depot Maintenance - Ordnance	13.7%	-8.8%
Depot Maintenance - Other	-10.2%	3.7%
Transportation:		
Fleet Auxiliary	3.6%	.5%
Special Mission	-.9%	9.3%
Afloat Prepositioning Ships	17.8%	-.4%
Research and Development:		
Research Lab	1.6%	5.6%
Civil Engineering Lab	3.5%	4.1%
NCCOSC	2.4%	1.7%
Undersea Warfare Centers	5.9%	2.5%
Surface Warfare Centers	2.8%	2.1%
Air Warfare Centers	1.2%	2.6%
Information Services:		
Fleet Material Support Office	.1%	7.3%
NCTC	.5%	4.2%
Printing Services	-6.8%	9.8%
Base Support:		
East Coast - utilities	-3.0%	-2.2%
East Coast - other	-2.9%	2.6%
West Coast - utilities	-11.3%	2.5%
West Coast - other	1.0%	2.9%

UNIT COST

Unit Cost is the method established in the DBOF to authorize and control costs. Unit cost goals allow activities to respond to work load changes in execution encouraging reduced costs when work load declines and allowing increased costs when additional services are requested by their customers. The Unit Cost goals for FY 1996 and FY 1997 are as follows:

Business Area	Unit Cost Goal	Unit Cost FY 1996	Unit cost FY 1997
Supply Management	Oblig/$ Whls Sale	.87	.87
	Oblig/$ Retail Sale	.98	.98
	Other Outputs (OA, $millions):	226.3	227.8
	Centrally Managed Programs	112.6	116.0
	Over Ocean Transportation	95.7	93.2
	Real Property Maintenance ($millions)	14.4	14.8
	Physical Distribution/NPFC ($millions)	3.7	3.8
Logistics Support Activity	(OA, $millions):	27.5	28.2
	Environmental Funding ($millions)	1.6	1.6
	RPM ($millions)	1.9	2.0
	MILPERS ($millions)	7.4	7.4
	G&A Support to Others ($millions)	16.5	17.2
Depot Maint-Ships	$ per Direct Labor Hour	78.38	83.51
Depot Maint-Aircraft	$ per Direct Labor Hour	118.96	105.12
Depot Maint-Ordnance	$ per Direct Labor Hour	106.60	97.21
Depot Maint-Other	$ per Direct Labor Hour	70.91	72.63
Base Support	Multiple unit cost measures	na	na
Research and Development	$ per Direct Labor Hour	79.27	81.14
Information Services	Multiple unit cost measures	na	na
Printing Services	Multiple unit cost measures	na	na
Transportation	NFAF cost per day $	48,015	45,459
	SMS cost per day $	27,458	28,470
	APF cost per day $	66,581	68,664

CAPITAL BUDGET

The following table depicts capital investment levels for the Navy DBOF business areas:

	(dollars in millions)			
	FY 1994	FY 1995	FY 1996	FY 1997
Supply Management	5.2	4.4	16.6	14.8
Distribution Depots	.8	.5	0	0
Logistics Support	25.4	14.8	21.6	22.1
Depot Maintenance - Ships	63.3	33.1	17.2	51.0
Depot Maintenance - Aircraft	11.7	9.9	22.8	36.7
Depot Maintenance - Ordnance	26.5	12.0	13.6	9.3
Depot Maintenance - Other	3.1	6.0	3.9	6.4
Transportation	5.1	4.8	6.0	2.9
Research and Development	154.8	94.3	134.5	125.2
Information Services	2.1	1.3	1.3	1.2
Printing Services	11.6	7.7	15.0	7.0
Base Support	31.3	14.7	25.8	24.8
Totals	340.9	203.5	278.3	301.4

Note: The FY 1995 total is $129.5 million, or 39 percent below the FY 1995 President's Budget request of $329.0 million due to Congressional action and the transfer of $10.0 million for purchase of ADP hardware for logistics systems from the Joint Logistics Systems Center (JLSC) budget to the Navy budget.

DEPARTMENT OF THE NAVY
TOTAL DBOF
REVENUE AND EXPENSES
(Dollars in Millions)

	FY 1994	FY 1995	FY 1996	FY 1997
Revenue:				
Gross Sales	23,638.8	24,534.0	21,841.0	21,104.9
Operations	23,130.0	24,035.3	21,342.1	20,611.2
Capital Surcharge	8.2	172.8	155.8	153.0
Depreciation except Maj Const	358.3	325.9	343.0	340.7
Major Construction Depreciation	142.3	0.0	0.0	0.0
Other Income	145.1	154.5	870.4	175.8
Refunds/Discounts (-)	0.0	0.0	0.0	0.0
Total Income	23,783.9	24,688.5	22,711.4	21,280.7
Expenses:				
Cost of Materiel Sold from Inventory	5,671.5	5,310.0	5,012.2	4,706.0
Negotiated Purchases from Customers	0.0	0.0	0.0	0.0
Transportation	458.5	455.7	426.3	381.5
Salaries and Wages:				
Military Personnel	200.3	159.0	157.2	158.2
Civilian Personnel	8,238.3	7,650.3	7,141.3	6,798.9
Materials, Supplies and				
Parts used in Operations	2,163.6	2,479.3	2,242.8	2,165.6
Facility Repair Charge	554.3	562.9	528.8	524.8
Depreciation - Capital	487.4	325.9	343.0	340.7
Contracted Engineering Services	480.1	568.6	593.8	626.9
Lease Costs	159.8	294.9	303.8	301.2
Purchased Utilities	640.7	623.9	558.9	545.8
Purchased Communications	190.1	167.8	94.9	89.6
Equipment Maintenance	132.0	138.3	129.4	129.5
Fuel	140.0	157.0	162.9	170.5
Other Expenses	4,381.4	5,110.8	4,373.3	4,017.8
Total Expenses	23,897.8	24,004.3	22,068.7	20,957.0
Operating Result	(113.9)	684.2	642.7	323.7
Less Capital Surchg Reservation	8.2	172.8	155.7	153.0
Plus Appropriations Affecting NOR/AOR	0.0	0.0	0.0	0.0
Other Changes Affecting NOR/AOR	101.6	76.0	423.7	(0.0)
Inventory Gains and Losses	(299.9)	(294.0)	(188.8)	(170.7)
Net Operating Result	(120.4)	293.5	721.3	0.0
Prior Year AOR	(894.4)	(1,014.8)	(721.3)	(0.0)
Accumulated Operating Result	(1,014.8)	(721.3)	0.0	0.0

DEPARTMENT OF THE NAVY
TOTAL DBOF
SOURCE OF REVENUE
(Dollars in Millions)

	FY 1994	FY 1995	FY 1996	FY 1997
1. New Orders	24,488.5	23,383.9	21,505.8	20,439.5
a. Orders from DoD Components	21,001.7	20,630.5	18,920.8	18,181.1
Department of the Navy	13,359.7	12,295.8	12,344.8	11,510.4
Operations and Maintenance, Navy	8,740.2	9,224.2	9,141.1	8,594.5
Operations and Maintenance, Marine Corps	306.9	356.2	358.1	348.2
O&M, Navy Reserve	165.7	153.0	117.1	126.7
O&M, Marine Corps Reserve	4.6	7.7	7.3	7.2
Aircraft Procurement, Navy	1,579.8	1,429.0	1,335.9	1,280.4
Weapons Procurement, Navy	586.9	454.8	401.2	391.3
Shipbuilding & Conversion, Navy	705.7	668.8	667.6	647.2
Other Procurement, Navy	2,183.7	1,661.1	1,399.7	1,434.5
Procurement, Marine Corps	68.2	88.6	104.5	94.6
Family Housing, Navy and Marine Corps	310.8	283.8	247.1	246.1
Research, Development, Test & Eval, Navy	2,516.6	2,251.5	2,138.7	2,174.4
Military Construction, Navy	16.3	4.6	4.5	4.0
Other Navy Appropriations	181.6	148.0	136.7	135.0
Other Marine Corps Appropriations	45.6	36.3	35.5	36.5
Department of the Army	287.9	280.7	251.1	251.4
Army Operation & Maintenance Accounts	172.6	243.6	211.3	218.6
Army Res, Dev, Test & Eval Accounts	17.1	34.8	39.2	33.8
Army Procurement Accounts	11.9	11.7	11.8	10.2
Army Other	135.9	37.2	28.6	28.9
Department of the Air Force	223.6	220.7	233.7	234.1
Air Force Operation & Maintenance Accounts	445.5	449.2	407.6	387.8
Air Force Res, Dev, Test & Eval Accounts	48.8	73.3	78.3	87.3
Air Force Procurement Accounts	27.1	26.3	26.6	29.4
Air Force Other	55.6	19.8	17.9	18.0
DoD Appropriated Accounts	1,207.6	1,346.8	940.6	689.4
Base Closure and Realignment	311.9	710.3	311.7	65.2
Operation & Maintenance Accounts	249.9	85.1	73.4	73.1
Res, Dev, Test & Eval Accounts	200.1	260.7	268.4	274.5
Procurement Accounts	132.9	26.7	23.3	21.6
DoD Other	333.6	285.0	276.4	267.2
b. Orders from DBOF Business Areas	4,019.2	3,558.4	2,948.1	2,775.5
c. Total DoD	23,574.7	22,589.4	20,817.6	19,811.5
d. Other Orders	914.1	794.4	688.2	628.0
Other Federal Agencies	230.7	201.4	175.1	180.9
Trust Funds (including FMS)	489.9	407.1	333.4	372.6
Non Federal Agencies	193.5	185.9	179.7	74.6
2. Carry-In Orders	7,585.5	8,750.3	7,270.5	6,256.0
3. Total Gross Orders (available funding)	32,074.3	32,134.2	28,776.2	26,695.6
4. Carry-Out Orders	8,749.2	7,460.0	6,256.0	5,400.4
Change in Backlog (carry-out less carry-in)	1,622.7	(1,276.1)	(823.3)	(870.1)
5. Total Gross Sales	23,783.9	24,688.5	22,711.4	21,280.7

DEPARTMENT OF THE NAVY
TOTAL DBOF
CAPITAL BUDGET
(Dollars in Millions)

Category	FY 1994	FY 1995	FY 1996	FY 1997
Equipment (except ADP & Telecom)	160.2	79.0	125.7	162.5
ADPE and Telecom	117.5	88.1	102.9	87.3
Software Development	18.2	11.2	11.6	10.2
Minor Construction	45.0	25.2	38.1	41.4
Total	340.9	203.5	278.3	301.4

DEFENSE BUSINESS OPERATIONS - FUND
FY 1996 / FY 1997 BUDGET ESTIMATE

SUPPLY MANAGEMENT

Background

The Department of the Navy Supply Management business area of the Defense Business Operations Fund (DBOF) performs inventory management functions that result in the sale of aviation, shipboard and amphibious consumables and repairables, fuel, ships store stock, general use consumables including subsistence material, and publications and forms to a wide variety of customers. These include Fleet and Marine Corps forces, Department of the Navy shore activities, Army, Air Force, Defense Agencies, other government agencies and foreign governments. All costs related to supplying this material to the customers are recouped through a stabilized price which includes the cost of the material, overhead (personnel, depreciation, transportation, etc.), and receipt and issue processing at distribution depots.

The Department benefits from the operation of this business area in two ways: 1) because a single inventory supplies all customers, investment in inventories is reduced and 2) purchase costs are reduced through bulk material purchases and centralized management.

Operations costs for the following activities are funded in the Supply Management business area:

Navy Ships Parts Control Center, Mechanicsburg, Pa
Navy Aviation Supply Office, Philadelphia, Pa
Marine Corps Logistics Base, Albany, Ga

Due to both the refinement of functions and force reduction, the annual operating cost of one of the three Navy Supply related business areas, Distribution Depots, has declined significantly to an estimate of $ 52 million in FY 1996. The Supply Management stabilized price bears the cost of the receipts / issues performed by the depots and is the sole customer. Consequently, starting in FY 1996, the Distribution Depot business area is incorporated into the Supply Management business area.

BUDGET HIGHLIGHTS

Quantitative Summary:

	FY 1994	FY 1995	FY 1996	FY 1997
Total Cost ($M)	6373.7	6976.5	5995.5	5633.7
Net Operating Results ($M)	297.7	-140.4	-429.0	0.0
Accumulated Operating Results ($M)	569.4	429.0	0.0	0.0
Workload (Net Sales) ($M)	6401.1	6779.3	5492.3	5557.5
Supply Material Availability:				
Navy	81%	82%	82%	82%
Marine Corps	85%	85%	85%	85%
Customer Rate Changes:				
Navy	6.0	22.1	-22.5	11.8
Marine Corps	9.8	.7	-9.1	-.5
Unit Costs:				
Wholesale ($)	.79	.70	.87	.78
Retail ($)	.95	.96	.98	.98
Civilian End Strength	6674	5992	7043	6679
Military End Strength	142	120	379	379
Civilian Workyears	6824	6102	7027	6663
Military Workyears	142	120	379	379

Civilian and Military End Strength / Workyears:

The total civilian and military end strength for all three Supply Business areas decreases by 13 percent in FY 1995, 24.5 percent in FY 1996, and an additional 5 percent in FY 1997. The significant decreases are a result of Base Realignment and Closure (BRAC) actions, streamlining to match force structure reductions and transfers to direct funding of some functions from the Logistics Support Activities business area starting in FY 1996.

The civilian and military personnel totals provided in the Supply Management quantitative data include Distribution Depot totals starting in FY 1996 since that business area has been combined with the Supply Management business area.

Unit Cost:

Wholesale and Retail unit cost rates provide the requisite obligational authority for the business area. Material and Supply Operations obligation requirements support the force structure and operating tempo funded in the Department's budget. Obligation requirements in the Supply Management business area decrease in all budget years relative to the previous year as follows: FY 1995 -3.6 percent, FY 1996 -6.9 percent, FY 1997 -3.3 percent. (actual unit cost rates are provided in the quantitative summary)

Workload:

The workload or unit cost resourcing unit of measure for Supply Management is net sales. To obtain an accurate picture of workload trends, Wholesale net sales must be normalized due to rate changes from year to year. Once the Wholesale rate changes are considered, the Department's Supply Management workload indicates a 5.9 percent decrease in FY 1995 (relative to FY 1994), another 6.1 percent decrease in FY 1996, and another 4.9 percent decrease in FY 1997. These workload projections are based on the force structure and fleet operating tempo. Aviation material requirements are based on the recurring demand from the Flying Hour Program, while the shipboard recurring demand matches the decreased number of ships.

Customer Rate Changes:

The FY 1996 Navy Supply management rate change is a decrease from FY 1995 of 22.5 percent while the Marine Corps FY 1996 customer rate decreases by 9.1 percent. The decrease in the FY 1996 Navy rate follows an increase of 22.1 percent in FY 1995 and is due to a number of factors including, passing back prior year profits from FY 1994 and FY 1995 generated from increased Wholesale sales (revenue) while overhead has been decreasing and profits generated from the sell down of Retail inventory levels. The Navy FY 1997 Supply Management customer rate increases by 11.8 percent in FY 1997 and the Marine Corps customer rate will decrease by .5 percent.

Supply Inventory and Material Replacement:

The DoN continues to aggressively pursue the goals of the DoD Inventory Reduction Plan and this submission supports the objective of reducing inventory investment and matching force structure decreases. This submission provides for decreases in both Wholesale and Retail inventory levels in all years.

Standard price inventory is projected to decrease by 8 percent in FY 1995 relative to FY 1994, another 8 percent decrease in FY 1996, and another 6.8 percent decrease in FY 1997.

To date the procurement obligation limitation (material replacement rate) of 65 percent of sales has not had a negative impact on the Department. Because of the current force structure reductions, the large amount of material returns, the exclusions allowed, and the increasing reliance on repair, readiness has not been impacted. The Department continues to monitor the impact of the limitation closely.

Performance Indicators:

The primary performance indicator for the Supply Management business area is Supply Material Availability (SMA),

which is the percentage of customer material requests that can be satisfied immediately from shelf stock. The current budget supports Navy obtaining an SMA of 82 percent in the budget years. Similarly, the current Supply Management budget supports the Marine Corps obtaining an SMA of 85 percent.

Headquarters Costs:

Costs are included to support the contribution of headquarters resources towards fulfilling the objective of this business area. These costs total approximately $ 5 million in FY 1996 and FY 1997.

Economies and Efficiencies:

The Department of the Navy continues to be committed to the goal of achieving maximum utilization of minimal inventory investments. The significant initiatives which are incorporated into the Department submission follow:

- Increased use of total asset visibility. The visibility of Wholesale, and consumer inventories are being tied together to optimize inventory investment.
- Maximum use of anticipated materials generated from decommissionings and force structure reductions.
- Increased reliance on Wholesale inventories.
- Expanded reliability improvement initiatives to reduce inventories and lower maintenance costs.
- Consolidation ashore of insurance stock.
- Elimination of requirements and recurring demand 24 months prior to decommissionings.
- State of the art demand forecasting techniques.
- Improved files accuracy.
- Cancellation of contracts and or "buys in process" for material which becomes inactive subsequent to a buy decision.
- Continuation of an aggressive disposal policy.
- Introduction of cultural change in inventory management.
  - -- Personnel evaluations based on IRP objectives.
  - -- Total Quality Management (TQM) at all levels.
  - -- Personal Qualifications Standards established.

Cost of Depot Level Repairables:

The DoN obligational authority included in the Supply Management budget in support of Depot Level Repairables (DLRs) follows:

	FY 1994	FY 1995	FY 1996	FY 1997
Total	$1,716M	$1,790M	$1,719M	$1,284M
Repair	$1,225	$1,216	$1,061	$ 968
Procurement	$ 491	$ 574	$ 658	$ 316

The obligations for DLRs highlight the dependence on repair versus procurement. Repair obligations primarily support recurring demand and include the year to year fluctuations in organic DLR repair prices of the NADEPs, Shipyards and Weapon Stations. Procurement obligations support both outfitting and repair attrition requirements.

Capital Budget Program Authority - The Supply Management business area Capital Budget finances the procurement of capital equipment, management information systems, and minor construction. These items are depreciated over the useful life of the asset, with the cost of depreciation included in the material surcharge.

DEFENSE BUSINESS OPERATIONS FUND
SUPPLY MANAGEMENT - DON
REVENUE AND EXPENSES
(Dollars in Millions)

	FY 1994	FY 1995	FY 1996	FY 1997
Revenue:				
Net Sales:				
Operations	6612.8	6704.7	5432.7	5496.3
Capital Surcharge(JLSC)		66.7	38.7	37
Depreciation except Maj Const	2.1	7.9	20.9	23.9
Major Construction Depreciation	0.3	0.0	0.0	0.0
Other Income	56.2	56.8	74.2	76.5
Refunds/Discounts				
Total Income	6671.4	6836.1	5566.5	5633.7
Expenses:				
Cost of Materiel Sold from Inventory	5671.5	5310.0	5012.2	4706.0
Transportation	57.7	59.7	65.5	62.9
Salaries and Wages:				
Military Personnel	7.0	5.9	14.5	14.4
Civilian Personnel	291.6	282.7	278.7	267.8
Materials, Supplies and Parts used in Operations	36.7	43.6	54.2	55.8
Facility Repair Charge	2.2	2.6	2.7	2.7
Depreciation - Capital	2.3	7.9	20.9	23.9
Contracted Engineering Services	0.0	0.0	0.0	0.0
Lease Costs	1.3	2.0	4.1	4.3
Purchased Utilities	5.3	5.2	8.0	8.2
Purchased Communications	6.9	6.4	6.7	7.0
Equipment Maintenance	1.2	1.2	1.6	1.6
Fuel	0.0	0.0	0.0	0.0
Other Expenses	-190.7	708.9	259.4	231.9
TO Distribution Depots	69.8	37.6	0.0	0.0
To Logistics Support	111.0	142.1	39.6	39.5
Total Expenses	6073.8	6615.8	5768.0	5426.0
Operating Result	597.6	220.3	-201.5	207.7
Less Capital Surchg Reservation	0.0	66.7	38.7	37.0
Plus Appropriations Affcting NOR/AOR	0.0	0.0	0.0	0.0
Other Changes Affecting NOR/AOR	0.0	0.0	0.0	0.0
Inventory Gains and Losses	-299.9	-294.0	-188.8	-170.7
Net Operating Result	297.7	-140.4	-429.0	0.0
Prior Year and Other Adjustments	0.0	0.0	0.0	0.0
Prior Year AOR	271.7	569.4	429	0.0
Net Result	297.7	-140.4	-429	0.0
Accumulated Operating Result	569.4	429	0.0	0.0

SUPPLY MANAGEMENT - NAVY
SOURCE OF REVENUE
(Dollars in Millions)

FUND-11

	FY 1994	FY 1995	FY 1996	FY 1997
1. New Orders				
a. Orders from DoD Components:				
Own Component				
1105 Military Personnel, M.C.	35.8	28.5	28.8	29.6
1106 O & M, Marine Corps	194.6	187.0	191.1	196.6
1107 O & M, M.C. Reserve	1.5	1.5	1.5	1.5
1108 Reserve Personnel, M.C.	5.6	6.0	6.2	6.4
1109 Procurement, M.C.	21.6	23.3	31.8	25.1
1319 RDT & E, Navy	0.2	0.2	0.2	0.2
1405 Reserve Personnel, Navy	12.4	12.5	11.3	10.6
1453 Military Personnel, Navy	51.7	52.0	47.0	44.2
1506 Aircraft Procurement, Navy	769.7	614.3	540.6	544.0
1611 Shipbuilding & Conv. Navy	98.2	73.0	47.4	70.5
1804 O & M, Navy	2656.7	3290.6	2733.1	2946.0
1806 O & M, Navy Reserve	76.6	64.5	59.5	57.0
1810 Other Procurement, Navy	128.2	118.3	51.7	78.3
4930 Defense Business Operations Fund	1731.2	1805.9	1402.1	1392.2
8421 Trust Revolving Fund, M.C.	0.1	0.1	0.1	0.1
	5,784.1	6,277.7	5,152.4	5,402.3
Orders from other DoD Components				
2100 Army	49.5	46.6	39.8	40.1
5700 Air Force	353.4	347.8	296.7	288.4
9700 other DoD	20.8	20.8	12.6	12.2
	423.7	415.2	349.1	340.7
b. Orders from other Fund Business Areas:				
Marine Corps Depot Maintenance	9.5	15.2	14.7	15.0
Distribution Depots Navy	3.1	4.7	2.6	2.2
Logistics Support Navy	41.7	59.7	33.4	28.4
	54.3	79.6	50.7	45.6
c. Total DoD	6,262.1	6,752.6	5,534.9	5,771.4
d. Other Orders:				
Other Federal Agencies	55.7	60.5	40.6	43.4
Trust Fund	0.0	0.0	0.0	0.0
Non Federal Agencies	117.8	115.1	112.4	5.5
Foreign Military Sales (FMS)	150.7	177.9	122.2	157.2
	324.2	353.5	275.2	206.1
2. Carry-In Orders				
3. Total Gross Orders	6,586.3	7,106.1	5,810.1	5,977.5
4. Change to Backlog	459.0	14.3	191.1	(14.5)
5. Total Gross Sales	7,045.3	7,120.4	6,001.2	5,963.0
Reimbursable Orders (BP 91)	56.2	56.8	69.0	71.2

NAVY SUMMARY
FY 1994
(Dollars in Millions)

DIVISION	PEACETIME INVENTORY	NET CUSTOMER ORDERS	NET SALES	OBLIGATION TARGETS			TOTAL OBLIGATIONS	COMMITMEN TARGET	TARGET TOTAL
				OPERATING	MOBILIZATION	OTHER			
BP 14									
Approved	1,418.2	160.8	160.8	118.6	0.0	0.0	118.6	0.0	118.6
Request	1,548.4	185.3	210.7	107.5	0.0	0.0	107.5	0.0	107.5
Delta	130.2	24.5	49.9	(11.1)	0.0	0.0	(11.1)	0.0	(11.1)
BP 15									
Approved	22.8	11.5	11.5	12.2	0.0	0.0	12.2	0.0	12.2
Request	24.7	9.5	9.5	8.4	0.0	0.0	8.4	0.0	8.4
Delta	1.9	(2.0)	(2.0)	(3.8)	0.0	0.0	(3.8)	0.0	(3.8)
BP 21									
Approved	29.2	195.8	195.8	189.3	0.0	0.0	189.3	0.0	189.3
Request	58.6	192.4	182.2	179.7	0.0	0.0	179.7	0.0	179.7
Delta	29.4	(3.4)	(13.6)	(9.6)	0.0	0.0	(9.6)	0.0	(9.6)
BP 23									
Approved	84.4	51.7	51.7	38.8	0.0	0.0	38.8	0.0	38.8
Request	66.4	57.2	57.2	21.2	0.0	0.0	21.2	0.0	21.2
Delta	(18.0)	5.5	5.5	(17.6)	0.0	0.0	(17.6)	0.0	(17.6)
BP 25									
Approved	0.0	1.0	1.0	1.0	0.0	0.0	1.0	0.0	1.0
Request	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delta	0.0	(1.0)	(1.0)	(1.0)	0.0	0.0	(1.0)	0.0	(1.0)
BP 28									
Approved	1,855.6	1,422.7	1,423.1	1,402.4	0.0	0.0	1,402.4	0.0	1,402.4
Request	1,722.2	1,277.8	1,290.0	1,234.0	0.0	0.0	1,234.0	0.0	1,234.0
Delta	(133.4)	(144.9)	(133.1)	(168.4)	0.0	0.0	(168.4)	0.0	(168.4)
BP 34									
Approved	1,727.7	410.4	450.2	329.0	0.0	0.0	329.0	0.0	329.0
Request	1,852.4	447.7	519.6	368.8	0.0	0.0	368.8	0.0	368.8
Delta	124.7	37.3	69.4	39.8	0.0	0.0	39.8	0.0	39.8
BP 38									
Approved	205.3	1,255.0	1,255.0	1,267.7	0.0	0.0	1,267.7	0.0	1,267.7
Request	222.3	1,241.4	1,241.4	1,217.0	0.0	0.0	1,217.0	0.0	1,217.0
Delta	17.0	(13.6)	(13.6)	(50.7)	0.0	0.0	(50.7)	0.0	(50.7)
BP 54									
Approved	78.2	8.5	10.3	5.7	0.0	0.0	5.7	0.0	5.7
Request	49.3	11.0	10.8	1.5	0.0	0.0	1.5	0.0	1.5
Delta	(28.9)	2.5	0.5	(4.2)	0.0	0.0	(4.2)	0.0	(4.2)
BP 81									
Approved	8,435.3	793.4	793.4	392.7	0.0	0.0	392.7	0.0	392.7
Request	8,547.8	845.9	841.0	293.6	0.0	0.0	293.6	0.0	293.6
Delta	112.5	52.5	47.6	(99.1)	0.0	0.0	(99.1)	0.0	(99.1)
BP 84			** REPAIR->	191.9					
Approved	375.7	36.5	39.6	44.0	0.0	0.0	44.0	0.0	44.0
Request	415.3	47.5	45.7	35.4	0.0	0.0	35.4	0.0	35.4
Delta	39.6	11.0	6.1	(8.6)	0.0	0.0	(8.6)	0.0	(8.6)
BP85			** REPAIR->	11.2					
Approved	14,081.5	1,571.8	1,814.1	1,457.8	0.0	0.0	1,457.8	0.0	1,457.8
Request	16,124.4	1,850.7	2,207.1	1,363.1	0.0	0.0	1,363.1	0.0	1,363.1
Delta	2,042.9	278.9	393.0	(94.7)	0.0	0.0	(94.7)	0.0	(94.7)
BP 91			** REPAIR->	1,023.3					
Approved	0.0	0.0	0.0	1,331.4	0.0	0.0	1,331.4	0.0	1,331.4
Request	0.0	0.0	0.0	1,376.2	0.0	0.0	1,376.2	0.0	1,376.2
Delta	0.0	0.0	0.0	44.8	0.0	0.0	44.8	0.0	44.8
TOTAL									
Approved	28,313.9	5,919.1	6,206.5	6,590.6	0.0	0.0	6,590.6	0.0	6,590.6
Request	30,631.8	6,166.4	6,615.2	6,206.4	0.0	0.0	6,206.4	0.0	6,206.4
Delta	2,317.9	247.3	408.7	(384.2)	0.0	0.0	(384.2)	0.0	(384.2)

NAVY SUMMARY
FY 1995
(Dollars in Millions)

DIVISION	PEACETIME INVENTORY	NET CUSTOMER ORDERS	NET SALES	OBLIGATION TARGETS			TOTAL OBLIGATIONS	COMMITMEN TARGET	TARGET TOTAL
				OPERATING	MOBILIZATION	OTHER			
BP 14									
Approved	1,583.2	138.2	138.2	80.4	0.0	0.0	80.4	0.0	80.4
Request	1,407.6	100.9	108.5	74.4	0.0	0.0	74.4	0.0	74.4
Delta	(175.6)	(37.3)	(29.7)	(6.0)	0.0	0.0	(6.0)	0.0	(6.0)
BP 15									
Approved	22.1	10.6	10.6	11.3	0.0	0.0	11.3	0.0	11.3
Request	20.2	10.4	10.4	11.3	0.0	0.0	11.3	0.0	11.3
Delta	(1.9)	(0.2)	(0.2)	0.0	0.0	0.0	0.0	0.0	0.0
BP 21									
Approved	29.6	82.6	82.6	82.6	0.0	0.0	82.6	0.0	82.6
Request	61.0	192.0	192.0	186.5	0.0	0.0	186.5	0.0	186.5
Delta	31.4	109.4	109.4	103.9	0.0	0.0	103.9	0.0	103.9
BP 23									
Approved	82.9	31.9	31.9	32.2	0.0	0.0	32.2	0.0	32.2
Request	58.5	57.1	57.1	33.4	0.0	0.0	33.4	0.0	33.4
Delta	(24.4)	25.2	25.2	1.2	0.0	0.0	1.2	0.0	1.2
BP 25									
Approved	0.0	1.0	1.0	1.0	0.0	0.0	1.0	0.0	1.0
Request	0.0	1.0	1.0	1.0	0.0	0.0	1.0	0.0	1.0
Delta	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BP 28									
Approved	1,751.9	1,412.9	1,411.4	1,281.4	0.0	0.0	1,281.4	0.0	1,281.4
Request	1,407.9	1,306.3	1,304.9	1,199.7	0.0	0.0	1,199.7	0.0	1,199.7
Delta	(344.0)	(106.6)	(106.5)	(81.7)	0.0	0.0	(81.7)	0.0	(81.7)
BP 34									
Approved	1,950.4	546.9	530.0	281.0	0.0	0.0	281.0	0.0	281.0
Request	1,882.9	641.2	621.8	308.7	0.0	0.0	308.7	0.0	308.7
Delta	(67.5)	94.3	91.8	27.7	0.0	0.0	27.7	0.0	27.7
BP 38									
Approved	194.3	597.6	597.6	597.8	0.0	0.0	597.8	0.0	597.8
Request	205.8	986.3	986.3	983.7	0.0	0.0	983.7	0.0	983.7
Delta	11.5	388.7	388.7	385.9	0.0	0.0	385.9	0.0	385.9
BP 54									
Approved	76.6	17.3	17.8	5.2	0.0	0.0	5.2	0.0	5.2
Request	42.8	12.3	12.8	2.0	0.0	0.0	2.0	0.0	2.0
Delta	(33.8)	(5.0)	(5.0)	(3.2)	0.0	0.0	(3.2)	0.0	(3.2)
BP 81									
Approved	8,816.7	840.2	840.2	442.3	0.0	0.0	442.3	0.0	442.3
Request	8,047.3	783.2	804.0	310.4	0.0	0.0	310.4	0.0	310.4
Delta	(769.4)	(57.0)	(36.2)	(131.9)	0.0	0.0	(131.9)	0.0	(131.9)
BP 84			** REPAIR->	186.2					
Approved	392.3	58.3	60.2	39.4	0.0	0.0	39.4	0.0	39.4
Request	382.6	44.7	52.2	41.9	0.0	0.0	41.9	0.0	41.9
Delta	(9.7)	(13.6)	(8.0)	2.5	0.0	0.0	2.5	0.0	2.5
BP85			** REPAIR->	13.3					
Approved	16,789.9	1,992.2	2,087.0	1,258.7	0.0	0.0	1,258.7	0.0	1,258.7
Request	18,931.9	2,629.6	2,628.3	1,438.5	0.0	0.0	1,438.5	0.0	1,438.5
Delta	2,142.0	637.4	541.3	179.8	0.0	0.0	179.8	0.0	179.8
BP 91			** REPAIR->	1,017.4					
Approved	0.0	0.0	0.0	1,270.1	0.0	0.0	1,270.1	0.0	1,270.1
Request	0.0	0.0	0.0	1,259.7	0.0	0.0	1,259.7	0.0	1,259.7
Delta	0.0	0.0	0.0	(10.4)	0.0	0.0	(10.4)	0.0	(10.4)
TOTAL									
Approved	31,689.9	5,729.7	5,808.5	5,383.4	0.0	0.0	5,383.4	0.0	5,383.4
Request	32,448.5	6,765.0	6,779.3	5,851.2	0.0	0.0	5,851.2	0.0	5,851.2
Delta	758.6	1,035.3	970.8	467.8	0.0	0.0	467.8	0.0	467.8

NAVY SUMMARY
FY 1996
(Dollars in Millions)

DIVISION	PEACETIME INVENTORY	NET CUSTOMER ORDERS	NET SALES	OBLIGATION TARGETS			TOTAL OBLIGATIONS	COMMITMEN TARGET	TARGET TOTAL
				OPERATING	MOBILIZATION	OTHER			
BP 14									
Approved	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Request	1,144.4	68.4	68.4	65.8	0.0	0.0	65.8	0.0	65.8
Delta	1,144.4	68.4	68.4	65.8	0.0	0.0	65.8	0.0	65.8
BP 15									
Approved	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Request	17.5	10.2	10.2	10.9	0.0	0.0	10.9	0.0	10.9
Delta	17.5	10.2	10.2	10.9	0.0	0.0	10.9	0.0	10.9
BP 21									
Approved	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Request	58.6	192.7	192.7	187.8	0.0	0.0	187.8	0.0	187.8
Delta	58.6	192.7	192.7	187.8	0.0	0.0	187.8	0.0	187.8
BP 23									
Approved	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Request	50.1	49.0	49.0	38.6	0.0	0.0	38.6	0.0	38.6
Delta	50.1	49.0	49.0	38.6	0.0	0.0	38.6	0.0	38.6
BP 25									
Approved	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Request	0.0	1.0	1.0	1.0	0.0	0.0	1.0	0.0	1.0
Delta	0.0	1.0	1.0	1.0	0.0	0.0	1.0	0.0	1.0
BP 28									
Approved	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Request	1,149.2	1,192.5	1,190.9	1,117.7	0.0	0.0	1,117.7	0.0	1,117.7
Delta	1,149.2	1,192.5	1,190.9	1,117.7	0.0	0.0	1,117.7	0.0	1,117.7
BP 34									
Approved	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Request	1,223.6	244.0	273.1	187.9	0.0	0.0	187.9	0.0	187.9
Delta	1,223.6	244.0	273.1	187.9	0.0	0.0	187.9	0.0	187.9
BP 38									
Approved	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Request	215.2	994.5	994.5	1,005.5	0.0	0.0	1,005.5	0.0	1,005.5
Delta	215.2	994.5	994.5	1,005.5	0.0	0.0	1,005.5	0.0	1,005.5
BP 54									
Approved	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Request	29.6	12.2	12.4	2.0	0.0	0.0	2.0	0.0	2.0
Delta	29.6	12.2	12.4	2.0	0.0	0.0	2.0	0.0	2.0
BP 81									
Approved	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Request	5,670.1	503.5	503.5	314.7	0.0	0.0	314.7	0.0	314.7
Delta	5,670.1	503.5	503.5	314.7	0.0	0.0	314.7	0.0	314.7
BP 84			** REPAIR->	194.7					
Approved	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Request	329.9	53.9	58.1	41.4	0.0	0.0	41.4	0.0	41.4
Delta	329.9	53.9	58.1	41.4	0.0	0.0	41.4	0.0	41.4
BP85			** REPAIR->	13.1					
Approved	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Request	13,516.6	1,979.3	2,138.5	1,363.1	0.0	0.0	1,363.1	0.0	1,363.1
Delta	13,516.6	1,979.3	2,138.5	1,363.1	0.0	0.0	1,363.1	0.0	1,363.1
BP 91			** REPAIR->	853.4					
Approved	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Request	0.0	0.0	0.0	1,080.7	0.0	0.0	1,080.7	0.0	1,080.7
Delta	0.0	0.0	0.0	1,080.7	0.0	0.0	1,080.7	0.0	1,080.7
TOTAL									
Approved	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Request	23,404.8	5,301.2	5,492.3	5,417.1	0.0	0.0	5,417.1	0.0	5,417.1
Delta	23,404.8	5,301.2	5,492.3	5,417.1	0.0	0.0	5,417.1	0.0	5,417.1

NAVY SUMMARY
FY 1997
(Dollars in Millions)

DIVISION	PEACETIME INVENTORY	NET CUSTOMER ORDERS	NET SALES	OBLIGATION TARGETS			TOTAL OBLIGATIONS	COMMITMEN TARGET	TARGET TOTAL
				OPERATING	MOBILIZATION	OTHER			
BP 14									
Approved	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Request	1,248.9	82.0	82.0	80.6	0.0	0.0	80.6	0.0	80.6
Delta	1,248.9	82.0	82.0	80.6	0.0	0.0	80.6	0.0	80.6
BP 15									
Approved	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Request	14.5	9.9	9.9	10.4	0.0	0.0	10.4	0.0	10.4
Delta	14.5	9.9	9.9	10.4	0.0	0.0	10.4	0.0	10.4
BP 21									
Approved	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Request	58.4	191.7	191.7	188.1	0.0	0.0	188.1	0.0	188.1
Delta	58.4	191.7	191.7	188.1	0.0	0.0	188.1	0.0	188.1
BP 23									
Approved	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Request	35.8	51.9	51.9	39.0	0.0	0.0	39.0	0.0	39.0
Delta	35.8	51.9	51.9	39.0	0.0	0.0	39.0	0.0	39.0
BP 25									
Approved	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Request	0.0	1.0	1.0	1.0	0.0	0.0	1.0	0.0	1.0
Delta	0.0	1.0	1.0	1.0	0.0	0.0	1.0	0.0	1.0
BP 28									
Approved	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Request	1,059.5	1,128.2	1,128.0	1,064.0	0.0	0.0	1,064.0	0.0	1,064.0
Delta	1,059.5	1,128.2	1,128.0	1,064.0	0.0	0.0	1,064.0	0.0	1,064.0
BP 34									
Approved	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Request	1,257.0	273.2	264.4	185.2	0.0	0.0	185.2	0.0	185.2
Delta	1,257.0	273.2	264.4	185.2	0.0	0.0	185.2	0.0	185.2
BP 38									
Approved	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Request	221.7	958.1	958.1	960.9	0.0	0.0	960.9	0.0	960.9
Delta	221.7	958.1	958.1	960.9	0.0	0.0	960.9	0.0	960.9
BP 54									
Approved	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Request	22.2	9.9	10.0	2.0	0.0	0.0	2.0	0.0	2.0
Delta	22.2	9.9	10.0	2.0	0.0	0.0	2.0	0.0	2.0
BP 81									
Approved	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Request	5,878.9	611.1	611.1	294.0	0.0	0.0	294.0	0.0	294.0
Delta	5,878.9	611.1	611.1	294.0	0.0	0.0	294.0	0.0	294.0
BP 84			** REPAIR->	195.7					
Approved	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Request	312.4	50.1	50.1	37.4	0.0	0.0	37.4	0.0	37.4
Delta	312.4	50.1	50.1	37.4	0.0	0.0	37.4	0.0	37.4
BP85			** REPAIR->	13.6					
Approved	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Request	13,545.0	2,204.6	2,199.0	1,222.7	0.0	0.0	1,222.7	0.0	1,222.7
Delta	13,545.0	2,204.6	2,199.0	1,222.7	0.0	0.0	1,222.7	0.0	1,222.7
BP 91			** REPAIR->	759.2					
Approved	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Request	0.0	0.0	0.0	1,063.5	0.0	0.0	1,063.5	0.0	1,063.5
Delta	0.0	0.0	0.0	1,063.5	0.0	0.0	1,063.5	0.0	1,063.5
TOTAL									
Approved	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Request	23,654.3	5,571.7	5,557.2	5,148.8	0.0	0.0	5,148.8	0.0	5,148.8
Delta	23,654.3	5,571.7	5,557.2	5,148.8	0.0	0.0	5,148.8	0.0	5,148.8

DEPARTMENT OF THE NAVY STOCK FUND
BUDGET PROJECT 14
OPERATING OBLIGATIONS BY WEAPON SYSTEM
SF-3B ATTACHMENT
FY 1995

WEAPON SYSTEM	BASIC REPLEN	OUTFTG	SPECIAL PROGRAM	TOTAL
AIR COND, REF, LIFE SUPPORT SYS	0.6			0.6
AIR/AIR MISSILES	6.3			6.3
AIR/GROUND MISSILES	0.3			0.3
AN/BSY-1	0.1			0.1
AN/SPS-48	0.7			0.7
AN/USC-38	0.1			0.1
AVIATION GUNS	0.2			0.2
AVIONICS	0.2			0.2
BASE, MOBILE + LOX	0.5			0.5
CIWS, MK-16 PHALANX	3.4		1.6	5.0
CRYPTO	0.4			0.4
DAMAGE CONTROL	3.6		1.1	4.7
DECK REPLN & WEAP HDLG EQUIP	0.9			0.9
DSSP	0.1	0.4		0.5
ELECTRIC POWER DIST	2.3			2.3
EOD, DIVING, SPEC WARFARE	3.4			3.4
ESM SYSTEM	0.2			0.2
GAGES	0.1			0.1
GUN MOUNT 5"/54	0.8			0.8
GUNS	0.1			0.1
HARPOON MISSILE	0.1			0.1
HELO LANDING SYS	0.1			0.1
INTERNAL COMMUN AN/UNQ-7	0.1			0.1
LM 2500	2.9			2.9
LOAD LISTS			1.6	1.6
LOMIX			1.0	1.0
MINES/MINESWEEPING EQUIP	0.5			0.5
MISC 2D RADAR	0.1			0.1
MISC SUB SONAR EQUIP	0.5			0.5
MISC TEST EQUIP	0.8			0.8
MISCELLANEOUS		0.2	3.4	3.6
MK 46 TORPEDO	0.8			0.8
MK 48 TORPEDO	2.6			2.6
MK 50 TORPEDO	0.3			0.3
MK 75 GUN MOUNT	0.5			0.5
MK 86 GFCS	0.4			0.4
NAVIGATIONAL CONVENTIONAL	0.2			0.2

NUCLEAR	20.0	13.3		33.3
ORDNANCE HANDLING	0.8			0.8
OSI MAINTENANCE			1.5	1.5
PERISCOPE	0.4			0.4
PROPS/SHAFT CONTROL	0.4			0.4
PUMPS, COMPRESSORS, BEARINGS	3.1			3.1
SATCOM	0.2			0.2
SEOC MSP			2.3	2.3
SHIP BOILERS	1.5			1.5
SHIP COMMUNICATIONS	0.2			0.2
SHIP DIESEL ENGINES	0.4			0.4
SHIP GAS TURBINES	0.9			0.9
SHIP HABITABILITY	0.6			0.6
SHIPALT		0.9	5.2	6.1
SHORE COMMUNICATIONS	0.1			0.1
SLQ-32	0.1			0.1
SMALL ARMS	0.1			0.1
SNAP 1	0.1			0.1
STEAM TURBINE GENERATORS	0.6			0.6
STRATEGIC SUBMARINE PL			0.9	0.9
SUB ARMAMENT & ELEC	0.2			0.2
SUB AUX SYSTEM	1.2			1.2
SUB COMM &DATA PRO	0.7			0.7
SUB PROPULSION	0.2			0.2
SUB SHIP CONTROL EQUIP	0.2			0.2
SUBSAFE LEVEL I	6.1			6.1
SURFACE SONAR	0.2			0.2
SWS	0.4			0.4
TARTAR MISSILE	0.7			0.7
TRIREFFAC LOAD LIST			2.1	2.1
UNASSIGNED WEAPON SYS	0.2			0.2
VALVES	2.6			2.6
WSC-3	0.2			0.2
GROSS REQUIREMENT	77.1	14.8	20.7	112.6
ASSET OFFSET		-3.3		-3.3
CREDIT MODS	-5.2	-0.6		-5.8
CONTRACT TERMINATIONS	-2.6	-0.3		-2.9
EFFICIENCIES/PROGRAM ADJUST	-0.4	-4.1	-20.7	-25.2
BOSS	-3.4	-0.6		-4.0
SUBTOTAL	65.5	5.9	0.0	71.4
SYSTEM STOCK/FOLLOW-ON SYSTEM STOCK				2.0
PROVISIONING SELLDOWN				1.0
TOTAL				74.4

DEPARTMENT OF THE NAVY STOCK FUND
BUDGET PROJECT 14
OPERATING OBLIGATIONS BY WEAPON SYSTEM ($M
SF-3B ATTACHMENT
FY 1996

WEAPON SYSTEM	BASIC REPLEN	OUTFTG	SPECIAL PROGRAMS	TOTAL
AIR COND, REF, LIFE SUPPORT SYS	0.2			0.2
AIR/AIR MISSILES	0.9			0.9
AIR/GROUND MISSILES	0.1			0.1
AN/BSY-1	0.1			0.1
AVIONICS	0.1			0.1
BASE, MOBILE & LOX	0.1			0.1
BLEED AIR VALVE	0.1			0.1
CIWS, MK-16 PHALANX	0.6		1.0	1.6
DAMAGE CONTROL	1.4		3.5	4.9
DECK REPLN & WEAP HDLG EQUIP	0.3			0.3
DSSP	0.1	0.5		0.6
ELECTRIC POWER DIST	0.7			0.7
EOD, DIVING, SPEC WARFARE	1.1			1.1
ESM SYSTEM	0.1			0.1
GUN MOUNT 5'/54	0.1			0.1
LM 2500	1.4			1.4
LOAD LISTS			2.2	2.2
LOMIX			1.0	1.0
MINES/MINESWEEPING EQUIP	0.1			0.1
MISC SUB SONAR EQUIP	0.1			0.1
MISC TEST EQUIP	0.3			0.3
MK 46 TORPEDO	0.4			0.4
MK 48 TORPEDO	0.6			0.6
MK 50 TORPEDO	0.1			0.1
MK 75 GUN MOUNT	0.1			0.1
MK 86 GFCS	0.1			0.1
NAVIGATION(ELECTRONIC)	0.2			0.2
NAVIGATIONAL CONVENTIONAL	0.1			0.1
NUCLEAR	20.6	13.5		34.1
ORDNANCE HANDLING	0.2			0.2
OSI MAINTENANCE			1.5	1.5
PERISCOPE	0.1			0.1
PM MISC			0.8	0.8
PROPS/SHAFT CONTROL	0.1			0.1
PUMPS, COMPRESSORS, BEARINGS	0.7			0.7
SEOC MSP			2.6	2.6
SHIP BOILERS	0.4			0.4

SHIP COMMUNICATIONS	0.1			0.1
SHIP DIESEL ENGINES	0.1			0.1
SHIP GAS TURBINES	0.2			0.2
SHIP HABITABILITY	0.1			0.1
SHIPALT		0	4.1	4.5
SNAP 1	0.1			0.1
STEAM TURBINE GENERATORS	0.2			0.2
STRATEGIC SUBMARINE PL			0.9	0.9
SUB ARMAMENT & ELEC	0.1			0.1
SUB AUX SYSTEM	0.5			0.5
SUB COMM & DATA PRO	0.6			0.6
SUB PROPULSION	0.1			0.1
SUB SHIP CONTROL EQUIP	0.1			0.1
SUBMARINE COMMUNICATIONS	0.3			0.3
SUBMARINE SONAR	0.1			0.1
SUBSAFE LEVEL 1	6.3			6.3
SWS CODE 84	0.1			0.1
TARTAR MISSILE	0.1			0.1
TRIREFFAC LOAD LIST			2.1	2.1
UNASSIGNED WEAPON SYS	0.2			0.2
VALVES	1.0			1.0
WATER DRIVEN BLOWERS			0.2	0.2
CARPER			16.8	16.8
GROSS REQUIREMENT	41.9	14.4	36.7	93.0
EFFICIENCIES/PROGRAM ADJUSTMENTS	-0.5	-3.9	-17.0	-21.4
ASSET OFFSET		-3.5		-3.5
CREDIT MODS	-2.2	-0.4	-0.2	-2.8
BOSS	-1.7	-0.6	-0.2	-2.5
CONTRACT TERMINATIONS	-0.7	-0.1	-0.1	-0.9
SUBTOTAL	36.8	5.9	19.2	61.9
PROVISIONING SELLDOWN				3.9
TOTAL				65.8

DEPARTMENT OF THE NAVY STOCK FUND
BUDGET PROJECT 14
OPERATING OBLIGATIONS BY WEAPON SYSTEM ($M
SF-3B ATTACHMENT
FY 1997

WEAPON SYSTEM	BASIC REPLEN	OUTFTG	SPECIAL PROGRAM	TOTAL
AIR COND, REF, LIFE SUPPORT SYS	0.1			0.1
AIR/AIR MISSILES	0.6			0.6
AN/BSY-1	0.1			0.1
AVIONICS	0.1			0.1
BASE, MOBILE & LOX	0.1			0.1
BLEED AIR VALVE	0.1			0.1
CIWS, MK-16 PHALANX	0.4		1.0	1.4
DAMAGE CONTROL	1.0		3.5	4.5
DECK REPLN & WEAP HDLG EQUIP	0.2			0.2
DSSP	0.1	0.7		0.8
ELECTRIC POWER DIST	0.5			0.5
EOD, DIVING, SPEC WARFARE	0.8			0.8
GUN MOUNT 5'/54	0.1			0.1
LM 2500	0.9			0.9
LOAD LISTS			2.2	2.2
LOMIX			1.0	1.0
MINES/MINESWEEPING EQUIP	0.1			0.1
MISC TEST EQUIP	0.2			0.2
MK 46 TORPEDO	0.3			0.3
MK 48 TORPEDO	0.4			0.4
MK 50 TORPEDO	0.1			0.1
MK 75 GUN MOUNT	0.1			0.1
MK 86 GFCS	0.1			0.1
NAVIGATION(ELECTRONIC)	0.2			0.2
NAVIGATIONAL CONVENTIONAL	0.1			0.1
NUCLEAR	21.2	12.6		33.8
ORDNANCE HANDLING	0.1			0.1
OSI MAINTENANCE			1.5	1.5
PERISCOPE	0.1			0.1
PM MISC			0.8	0.8
PROPS/SHAFT CONTROL	0.1			0.1
PUMPS, COMPRESSORS, BEARINGS	0.5			0.5
SEOC MSP			2.6	2.6
SHIP BOILERS	0.3			0.3
SHIP COMMUNICATIONS	0.1			0.1
SHIP DIESEL ENGINES	0.1			0.1
SHIP GAS TURBINES	0.1			0.1

SHIP HABITABILITY	0.1			0.1
SHIPALT		0.4	4.1	4.5
STEAM TURBINE GENERATORS	0.1			0.1
STRATEGIC SUBMARINE PL			0.9	0.9
SUB ARMAMENT & ELEC	0.1			0.1
SUB AUX SYSTEM	0.3			0.3
SUB COMM & DATA PRO	0.4			0.4
SUB PROPULSION	0.1			0.1
SUB SHIP CONTROL EQUIP	0.1			0.1
SUBMARINE SONAR	0.1			0.1
SUBSAFE LEVEL I	6.5			6.5
SWS CODE 84	0.1			0.1
TARTAR MISSILE	0.1			0.1
TRIREFFAC LOAD LIST			2.1	2.1
UNASSIGNED WEAPON SYS	0.1			0.1
VALVES	0.7			0.7
WATER DRIVEN BLOWERS			0.2	0.2
CARPER			34.1	34.1
GROSS REQUIREMENT	38.1	13.7	54.0	105.8
EFFICIENCIES/PROGRAM ADJUST	-1.2	-1.8	-19.8	-22.8
ASSET OFFSET		-3.7		-3.7
CREDIT MODS	-0.8	-0.1		-0.9
BOSS	-1.5	-0.6	-0.1	-2.2
CONTRACT TERMINATIONS	-0.8	-0.1		-0.9
SUBTOTAL	33.8	7.4	34.1	75.3
SYSTEM STOCK/FOLLOW-ON SYSTEM STOCK				3.6
PROVISIONING SELLDOWN				1.7
TOTAL				80.6

DEPARTMENT OF THE NAVY STOCK FUND
BUDGET PROJECT 81
OPERATING OBLIGATIONS BY WEAPON SYSTEM ($M)
SF-3B ATTACHMENT
FY 1995

WEAPON SYSTEM	BASIC REPLEN	OUTFTG	SPECIAL PROGRAMS	REWORK	TOTAL
ACLS	0.5			1.2	1.7
ADVANCE SIGNAL PROCESSOR	0.3			0.7	1.0
ADVD SEAL DELIVERY SYSTEM		6.0			6.0
AEGIS	2.4	13.9		5.9	22.2
AIR COND, REF, LIFE SUPPORT SYS	4.8			8.0	12.8
AIRCRAFT CARRIER CAT COVER				2.1	2.1
AIR/AIR MISSILES	0.6			2.1	2.7
AIR/GROUND MISSILES	0.7			0.5	1.2
ANDVT, JTIDS				0.2	0.2
AN/BSY-1	0.1			0.9	1.0
AN/BSY-2		5.9		0.6	6.5
AN/SLQ-25		1.1			1.1
AN/SPS-40,10,29,37 AN/BPS,AN/SSF	0.2			1.5	1.7
AN/SPS-48	0.3			1.5	1.8
AN/SPS-52				0.2	0.2
AN/SPS-55, 63 RADAR	0.1			1.8	1.9
AN/SQQ-32		3.4			3.4
AN/SQQ-89	0.2	4.6		1.0	5.8
AN/SRQ-4		0.8			0.8
AN/SYQ-17		1.1			1.1
AN/SYQ-18		2.8			2.8
AN/URC-107(V)7 JTIDS		7.8			7.8
AN/USC-38(V)	2.3	0.6		2.3	5.2
AN/USQ-101		1.0			1.0
AN/USQ-82(V)	0.1	1.4		0.9	2.4
AN/UYA-4				1.7	1.7
AN/UYK-43(V)B		0.4		0.4	0.8
AN/UYK-44	0.1			0.5	0.6
AN/UYQ-21	0.1	3.4		1.0	4.5
AVIATION GUNS	0.1			0.3	0.4
AVIONICS	3.9			2.1	6.0
BLEED AIR VALVE	0.4			0.5	0.9
BQQ5 & 6 SONAR	0.1	0.4		0.6	1.1
CALIBRATION STANDARDS		3.2			3.2
CFEE	0.1			1.4	1.5
CIWS	2.5	8.5	14	8.8	34.0
CODE OOD	0.6			1.3	1.9
COMMON COMPUTERS	0.3			2.0	2.3
CRYPTO				1.3	1.3
DAMAGE CONTROL	0.2		1	1.3	2.5
DECK REPLN & WEAP HDLG EQUIP	0.6			4.6	5.2
DSSP	0.2	1.5		1.3	3.0
ELECTRIC POWER DIST	2.0			2.2	4.2
ELECTRONIC SURVEILLANCE	0.3			1.1	1.4
EOD, DIVING SPEC WARFARE	0.4			2.4	2.8
ESGN SYSTEM	0.6			10.6	11.2
ESM SYSTEM	0.9			2.4	3.3
GAGES				0.1	0.1
GPETE	0.3	20.5		0.9	21.7
GUN MOUNT 5'/54	0.7			0.3	1.0

GUNS	0.4				0.4
HARPOON MISSILE				0.3	0.3
HELO LAND SYSTEM	0.1	0.2		1.4	1.7
ICSS 05121	0.1				0.1
ICSS 05122	0.8			0.2	1.0
INTERNAL COMMUN, AN/UNQ-7	0.2			1.5	1.7
LM 2500	1.9			11.6	13.5
LOAD LIST			1		1.4
LO-MIX			2		2.3
MATCS				0.9	0.9
METEOROLOGICAL	0.3			0.2	0.5
MILITARY SEALIFT COMMAND	0.6			0.3	0.9
MINES/MINESWEEPING EQUIP	0.3			0.6	0.9
MISC 2D RADAR				0.8	0.8
MISC SUB SONAR EQUIP	0.4			3.4	3.8
MISC TEST EQUIP	0.1			0.6	0.7
MISCELLANEOUS		13.1	2		15.4
MK 46 TORPEDO	0.1			0.2	0.3
MK 48 TORPEDO	1.6			5.3	6.9
MK 50 TORPEDO	0.2			1.0	1.2
MK 68 GFCS				0.1	0.1
MK 75 GUN MOUNT				0.2	0.2
MK 86 GFCS	1.9			3.5	5.4
MK 92 GFCS	1.2		2	6.4	9.4
MK-41 VLS	0.6	2.9		1.3	4.8
MK57		1.0			1.0
NATO SEASPARROW MISSILE	0.1			3.9	4.0
NAVIGATIONAL CONVENTIONAL	0.5			1.7	2.2
NAVIGATION(ELECTRONIC)	1.4			5.0	6.4
NAVSTAR GPS	0.5				0.5
NCCS	0.1			0.4	0.5
NEW CONSTRUCTION SCHEDULE A			3		2.5
NON FBM NAVIGATION	0.3			1.0	1.3
NSF FOR ACQ OF TECH DATA			0		0.1
NSF FOR REVERSE ENG.			0		0.2
NUCLEAR SUPPORT	1.9	1.1		0.5	3.5
OCEAN SURVEILLANCE				0.5	0.5
ORDNANCE HANDLING				0.1	0.1
OSI MAINTENANCE			10		9.7
OTHER GFCS	0.1				0.1
PERISCOPE	1.0	2.9		3.8	7.7
PROPS/SHAFT CONTROL	3.2			1.6	4.8
PTTI				0.4	0.4
PUMPS, COMPRESSORS, BEARINGS	1.2			4.2	5.4
RADIAC				0.3	0.3
RAM	0.2				0.2
RD-358A				0.2	0.2
RELIABILITY/MAINTAINABILITY			2		2.0
REVERSE OSMOSIS DESALINATOR			2		1.6
SATCOM	0.9			1.3	2.2
SHIP BOILERS	0.8			0.7	1.5
SHIP COMMUNICATIONS	1.6	0.7		2.8	5.1
SHIP DIESEL ENGINES	1.0			1.6	2.6
SHIP GAS TURBINES	1.5			4.2	5.7
SHIP HABITABILITY				0.1	0.1
SHIPALT		0.7	4		4.9
SHORE COMMUNICATION	0.2			0.1	0.3
SINS/DMINS	0.1			2.5	2.6
SLQ-32	0.3	1.3		2.5	4.1
SMALL ARMS	0.4			1.6	2.0

SNAP 1				2.0	2.0
SNAP 2				1.2	1.2
SPG 51				1.1	1.1
SPG 55	0.3			0.5	0.8
STEAM TURBINE GENERATORS	6.1			0.6	6.7
STRATEGIC SUBMARINE PL			3		2.9
SUB ARMAMENT & ELEC	0.3			1.4	1.7
SUB AUX SYSTEM	0.8			6.0	6.8
SUB COMM & DATA PRO	1.0			4.3	5.3
SUB PROPULSION	0.1			2.1	2.2
SUB SHIP CONTROL EQUIP	0.2			2.3	2.5
SUBMARINE FCS	0.6			0.6	1.2
SUBMARINE SONAR				0.2	0.2
SUBSAFE LEVEL I	1.0			1.4	2.4
SURFACE ASW FCS				0.1	0.1
SURFACE REWSON	0.3			0.1	0.4
SURFACE SONAR	0.4			2.1	2.5
SVTT MK32				0.1	0.1
TACTICAL DISPLAY				0.3	0.3
TARTAR MISSILE	1.7			2.0	3.7
TAS MK23	0.1	0.7		1.1	1.9
TECHNICAL REFERRALS			4.3		4.3
TELETYPE	0.1			1	0.7
TOMAHAWK				0.5	0.5
TRIREFFAC LOAD LIST			3.2		3.2
UNASSIGNED WEAPON SYS	4.1			0.2	4.3
URT-23				1.4	1.4
VALVES	0.2			0.4	0.6
WSC-3		0.5		1.9	2.4
WSC-6	0.6			0.5	1.1
GROSS REQUIREMENT	73.0	113.4	53.7	196.3	436.4
CONTRACT TERMINATION	-5.9	-6.7	-2.3		-14.9
EFFICIENCIES/PROGRAM ADJUST	-1.0	-32.7	-21.6	-0.1	-55.4
BOSS SAVINGS	-3.7	-6.2	-2.9		-12.8
ASSET OFFSET		-14.7			-14.7
CREDIT MODS	-17.0	-17.8	-6.3	-10.0	-51.1
SUBTOTAL	45.4	35.3	20.6	186.2	287.5
PROVISIONING SELLDOWN					6.6
SYSTEM STOCK/FOLLOW-ON SYSTEM STOCK					16.3
TOTAL					310.4

DEPARTMENT OF THE NAVY STOCK FUND
BUDGET PROJECT 81
OPERATING OBLIGATIONS BY WEAPON SYSTEM ($M)
SF-3B ATTACHMENT
FY 1996

WEAPON SYSTEM	BASIC REPLEN	OUTFTG	SPECIAL PROGRAMS	REWORK	TOTAL
ACLS	0.1			1.2	1.3
ADVANCE SIGNAL PROCESSOR	0.1			0.7	0.8
ADVD SEAL DELIVERY SYSTEM		12.0			12.0
AEGIS	2.2	1.6		6.9	10.7
AIR COND, REF, LIFE SUPPORT SYS	0.8			7.1	7.9
AIRCRAFT CARRIER CAT COVER			5.3		5.3
AIR/AIR MISSILES	0.2			1.9	2.1
AIR/GROUND MISSILES	0.1			0.6	0.7
ANDVT, JTIDS				0.2	0.2
AN/BSY-1	0.3	2.8		0.9	4.0
AN/BSY-2				0.5	0.5
AN/SPQ-9		1.3			1.3
AN/SPS-40,10,29,37,43	1.0			1.9	2.9
AN/SPS-48	1.5	0.6		1.9	4.0
AN/SPS-52	0.1			0.2	0.3
AN/SPS-55, 63 RADAR	0.1			2.1	2.2
AN/SQQ-32		2.2			2.2
AN/SQQ-89	0.2	2.9		1.0	4.1
AN/SWG-3		1.9			1.9
AN/SYQ-18		1.8			1.8
AN/URC-107(V)7 JTIDS		6.3			6.3
AN/USC-38(V)	0.9	2.5		2.3	5.7
AN/USQ-101		0.9			0.9
AN/USQ-82(V)	0.2	1.4		0.7	2.3
AN/UYA-4	0.3			2.0	2.3
AN/UYK-43(V)B	0.2	0.4		0.5	1.1
AN/UYK-44	0.2			0.5	0.7
AN/UYQ-21	0.2			1.2	1.4
AUTO DIGITAL ACQ SUBSYSTEM		4.6			4.6
AVIATION GUNS	0.1			0.3	0.4
AVIONICS	2.2			2.2	4.4
BLEED AIR VALVE	0.2			0.6	0.8
BQQ5 SONAR	0.1	1.6		0.7	2.4
CALIBRATION STANDARDS		3.3			3.3
CFEE	0.4			1.8	2.2
CIWS	2.1	7.2	14.8	9.1	33.2
CODE OOD	1.7			1.4	3.1
COMMON COMPUTERS	0.1			2.4	2.5
COMMON DISPLAY CONSOLE		1.4			1.4
CRYPTO	0.1			1.5	1.6
DAMAGE CONTROL				1.1	1.1
DECK REPLN & WEAP HDLG EQUIP	0.8			3.6	4.4
DSSP	0.2	1.4		1.3	2.9
ELECTRIC POWER DIST	1.5			2.7	4.2
ELECTRONIC SURVEILLANCE	0.2			1.4	1.6
EOD, DIVING SPEC WARFARE	1.5			2.5	4.0
ESGN SYSTEM	0.1			10.1	10.2
ESM SYSTEM	0.4			2.9	3.3
GAGES				0.2	0.2
GMLS MK26		0.9			0.9

GPETE	0.3	21.7		0.8	22.8
GUN MOUNT 5'/54	0.2			0.4	0.6
GUNS				0.1	0.1
HARPOON MISSILE				0.3	0.3
HELO LANDING SYSTEM	0.2	0.8		1.5	2.5
ICSS 05122	0.1			0.2	0.3
INTERNAL COMMUN, AN/UNQ-7	0.4			1.7	2.1
LM 2500	2.0			11.8	13.8
LOAD LIST			2.6		2.6
LO-MIX			1.0		1.0
MATCS	0.3			0.9	1.2
METEOROLOGICAL	0.1			0.2	0.3
MILITARY SEALIFT COMMAND				0.3	0.3
MINES/MINESWEEPING EQUIP	0.2			0.6	0.8
MISC 2D RADAR				0.8	0.8
MISC SUB SONAR EQUIP	2.3			3.8	6.1
MISC TEST EQUIP	0.3			0.5	0.8
MISCELLANEOUS		14.5	4.2		18.7
MK 46 TORPEDO				0.2	0.2
MK 48 TORPEDO	2.7			5.8	8.5
MK 50 TORPEDO	0.5			1.1	1.6
MK 68 GFCS				0.1	0.1
MK 75 GUN MOUNT	0.1			0.3	0.4
MK 86 GFCS	3.9			4.2	8.1
MK 92 GFCS	0.5			7.2	7.7
MK49 GMLS		0.9			0.9
NATO SEASPARROW MISSILE	0.3			4.6	4.9
NAVIGATIONAL CONVENTIONAL	0.1			2.1	2.2
NAVIGATION(ELECTRONIC)	3.8			5.5	9.3
NAVSTAR GPS	0.2				0.2
NCCS				0.4	0.4
NON FBM NAVIGATION	0.1			1.0	1.1
NSF FOR ACQ OF TECH DATA			0.1		0.1
NSF FOR REVERSE ENG.			0.2		0.2
NUCLEAR SUPPORT	0.7	1.2		0.6	2.5
OCEAN SURVEILLANCE	0.1			0.5	0.6
ORDNANCE HANDLING	0.1			0.1	0.2
OSI MAINTENANCE			8.2		8.2
PERISCOPE	0.6	1.1		3.8	5.5
PROPS/SHAFT CONTROL	0.1			1.7	1.8
PTTI				0.4	0.4
PUMPS, COMPRESSORS, BEARINGS	0.9			4.7	5.6
RADIAC	0.1			0.4	0.5
RELIABILITY/MAINTAINABILITY			2.0		2.0
SATCOM	4.2			1.6	5.8
SHIP BOILERS	1.0			0.9	1.9
SHIP COMMUNICATIONS	1.4	4.9		3.2	9.5
SHIP DIESEL ENGINES	0.6			1.9	2.5
SHIP GAS TURBINES	2.7			3.9	6.6
SHIP HABITABILITY				0.1	0.1
SHIPALT		0.4	2.5		2.9
SHORE COMMUNICATION	0.8			0.1	0.9
SINS/DMINS				2.6	2.6
SLQ-32	0.6	3.5		3.1	7.2
SMALL ARMS	0.5			1.6	2.1
SNAP 1	0.1			2.5	2.6
SNAP 2				1.1	1.1
SPG 51				1.4	1.4
SPG 55				0.5	0.5
STEAM TURBINE GENERATORS	0.2			0.6	0.8

STRATEGIC SUBMARINE PL			2.9		2.9
SUB ARMAMENT & ELEC	0.2			1.5	1.7
SUB AUX SYSTEM	0.6			5.9	6.5
SUB COMM &DATA PRO	1.2			4.4	5.6
SUB PROPULSION	0.3			2.0	2.3
SUB SHIP CONTROL EQUIP	0.4			2.7	3.1
SUBMARINE FCS				0.6	0.6
SUBMARINE SONAR				0.2	0.2
SUBSAFE LEVEL I	0.8			1.7	2.5
SURFACE ASW FCS				0.1	0.1
SURFACE REWSON				0.1	0.1
SURFACE SONAR	0.2			2.0	2.2
TACTICAL DISPLAY	0.1			0.4	0.5
TARTAR MISSILE	0.3			2.1	2.4
TAS MK23	0.5			1.0	1.5
TECHNICAL REFERRALS			4.3		4.3
TELETYPE	0.2			0.7	0.9
TOMAHAWK	0.2			0.5	0.7
TRIREFFAC LOAD LIST			3.2		3.2
UNASSIGNED WEAPON SYS	0.4			0.3	0.7
URT-23	0.6			2.0	2.6
VALVES	0.2			0.4	0.6
VLS	1.0	1.4		1.2	3.6
WSC-3	0.1	0.3		2.1	2.5
WSC-6	0.2			0.5	0.7
GROSS REQUIREMENT	61.2	109.7	51.3	206.2	428.4
CONTRACT TERMINATION	-5.4	-6.1	-3.2		-14.7
BOSS	-3.7	-6.2	-3.0		-12.9
EFFICIENCIES/PROGRAM ADJUSTMENT	-1.6	-33.1	-17.7	-1.5	-53.9
ASSET OFFSET		-16.4			-16.4
CREDIT MODS	-13.1	-12.3	-6.7	-10.0	-42.1
SUBTOTAL	37.4	35.6	20.7	194.7	288.4
PROVISIONING SELLDOWN					7.5
SYSTEM STOCK/FOLLOW-ON SYSTEM STOCK					18.8
TOTAL					314.7

DEPARTMENT OF THE NAVY STOCK FUND
BUDGET PROJECT 81
OPERATING OBLIGATIONS BY WEAPON SYSTEM ($M)
SF-3B ATTACHMENT
FY 1997

WEAPON SYSTEM	BASIC REPLEN	OUTFTG	SPECIAL PROGRAMS	REWORK	TOTAL
ACLS	0.1			1.2	1.3
ADVANCE SIGNAL PROCESSOR	0.1			0.7	0.8
ADVD SEAL DELIVERY SYSTEM		18.0			18.0
AEGIS	2.0	1.6		6.9	10.5
AIR COND, REF, LIFE SUPPORT SYS	0.7			7.1	7.8
AIR/AIR MISSILES	0.2			1.9	2.1
AIR/GROUND MISSILES	0.1			0.5	0.6
AIRCRAFT CARRIER CAT COVER			5.3		5.3
AN/BSY-1	0.3	4.1		0.9	5.3
AN/BSY-2		5.9		0.5	6.4
AN/SPQ-9		0.7			0.7
AN/SPS-40,10,29,37,43	0.9			1.9	2.8
AN/SPS-48	1.3			1.9	3.2
AN/SPS-52	0.1			0.2	0.3
AN/SPS-55, 63 RADAR	0.1			2.1	2.2
AN/SQQ-89	0.2	2.8		1.0	4.0
AN/SWG-3		1.3			1.3
AN/SYQ-18		1.5			1.5
AN/URC-107(V)7 JTIDS		10.6			10.6
AN/USC-38(V)	0.8	0.4		2.3	3.5
AN/USC-42(V)		1.0			1.0
AN/USC-53(V)		1.0			1.0
AN/USQ-82(V)	0.2	0.5		0.7	1.4
AN/UYA-4	0.3			2.0	2.3
AN/UYK-43(V)B	0.1			0.5	0.6
AN/UYK-44	0.2			0.5	0.7
AN/UYQ-21	0.2			1.2	1.4
ANDVT, JTIDS				0.2	0.2
AUTO DIGITAL ACQ SUBSYSTEM		3.8			3.8
AVIATION GUNS	0.1			0.3	0.4
AVIONICS	2.0			2.2	4.2
BLEED AIR VALVE	0.1			0.6	0.7
BQQ5 SONAR	0.1	1.9		0.7	2.7
CALIBRATION STANDARDS		3.7			3.7
CFEE	0.4			1.8	2.2
CIWS	1.9	3.1	14.8	9.1	28.9
CODE OOD	1.5			1.4	2.9
COMMON COMPUTERS	0.1			2.4	2.5
COMMON DISPLAY CONSOLE		0.9			0.9
CRYPTO	0.1			1.5	1.6
DAMAGE CONTROL				1.1	1.1
DECK REPLN & WEAP HDLG EQUIP	0.7			3.6	4.3
DSSP	0.2	1.4		1.3	2.9
ELECTRIC POWER DIST	1.4			2.7	4.1
ELECTRONIC SURVEILLANCE	0.2			1.4	1.6
EOD, DIVING SPEC WARFARE	1.4			2.5	3.9
ESGN SYSTEM	0.1			10.2	10.3
ESM SYSTEM	0.3			2.9	3.2
GAGES				0.2	0.2
GPETE	0.3	17.2		0.8	18.3

GUN MOUNT 5/54	0.2			0.4	0.6
GUNS				0.1	0.1
HARPOON MISSILE				0.3	0.3
HELO LANDING SYSTEM	0.2			1.5	1.7
ICSS 05122	0.1			0.2	0.3
INTERNAL COMMUN, AN/UNQ-7	0.4			1.7	2.1
LM 2500	1.8			11.8	13.6
LO-MIX			1.0		1.0
LOAD LIST			2.6		2.6
MAG SECURITY SYSTEM		1.2			1.2
MATCS	0.3			0.9	1.2
METEOROLOGICAL	0.1			0.2	0.3
MILITARY SEALIFT COMMAND				0.3	0.3
MINES/MINESWEEPING EQUIP	0.1			0.6	0.7
MISC 2D RADAR				0.8	0.8
MISC SUB SONAR EQUIP	2.1			3.8	5.9
MISC TEST EQUIP	0.3			0.5	0.8
MISCELLANEOUS		6.0	4.2		10.2
MK 105 UPGRADE		0.8			0.8
MK 46 TORPEDO				0.2	0.2
MK 48 TORPEDO	2.4			5.8	8.2
MK 50 TORPEDO	0.4			1.2	1.6
MK 68 GFCS				0.1	0.1
MK 75 GUN MOUNT	0.1			0.3	0.4
MK 86 GFCS	3.5			4.2	7.7
MK 92 GFCS	0.4			7.2	7.6
NATO SEASPARROW MISSILE	0.2			4.6	4.8
NAVIGATION(ELECTRONIC)	3.4			5.5	8.9
NAVIGATIONAL CONVENTIONAL	0.1			2.1	2.2
NAVSTAR GPS	0.2				0.2
NAVY TACTICAL INPUT SEGMENT		2.1			2.1
NCCS				0.4	0.4
NON FBM NAVIGATION	0.1			1.0	1.1
NSF FOR ACQ OF TECH DATA			0.1		0.1
NSF FOR REVERSE ENG.			0.2		0.2
NUCLEAR SUPPORT	0.7	1.1		0.6	2.4
OA-9070A		1.6			1.6
OCEAN SURVEILLANCE	0.1			0.5	0.6
ORDNANCE HANDLING	0.1			0.1	0.2
OSI MAINTENANCE			8.2		8.2
PERISCOPE	0.6	1.0		3.8	5.4
PROPS/SHAFT CONTROL	0.1			1.8	1.9
PTTI				0.4	0.4
PUMPS, COMPRESSORS, BEARINGS	0.8			4.7	5.5
RADIAC	0.1			0.4	0.5
RELIABILITY/MAINTAINABILITY			2.0		2.0
SATCOM	3.8	12.7		1.7	18.2
SHIP BOILERS	0.9			0.9	1.8
SHIP COMMUNICATIONS	1.2	3.0		3.2	7.4
SHIP DIESEL ENGINES	0.6			1.9	2.5
SHIP GAS TURBINES	2.4			3.9	6.3
SHIP HABITABILITY				0.1	0.1
SHIPALT		0.4	2.5		2.9
SHORE COMMUNICATION	0.7			0.1	0.8
SINS/DMINS				2.6	2.6
SLQ-32	0.5	0.6		3.1	4.2
SMALL ARMS	0.4			1.6	2.0
SNAP 1	0.1			2.5	2.6
SNAP 2				1.1	1.1
SPG 51				1.4	1.4

SPG 55				0.5	0.5
STEAM TURBINE GENERATORS	0.2			0.6	0.8
STRATEGIC SUBMARINE PL			2.9		2.9
SUB ARMAMENT & ELEC	0.2			1.6	1.8
SUB AUX SYSTEM	0.5			5.9	6.4
SUB COMM &DATA PRO	1.0			4.5	5.5
SUB PROPULSION	0.2			2.0	2.2
SUB SHIP CONTROL EQUIP	0.4			2.7	3.1
SUBMARINE FCS				0.6	0.6
SUBMARINE SONAR				0.2	0.2
SUBSAFE LEVEL I	0.7			1.7	2.4
SURFACE ASW FCS				0.1	0.1
SURFACE REWSON				0.1	0.1
SURFACE SONAR	0.1			2.1	2.2
TAC-3		0.9			0.9
TACTICAL DISPLAY	0.1			0.4	0.5
TARTAR MISSILE	0.3			2.1	2.4
TAS MK23	0.4			1.0	1.4
TECHNICAL REFERRALS			4.3		4.3
TELETYPE	0.2			0.7	0.9
THERMAL IMAGING SENSOR SYS		1.0			1.0
TOMAHAWK	0.2			0.5	0.7
TRIREFFAC LOAD LIST			3.2		3.2
UNASSIGNED WEAPON SYS	0.3			0.3	0.6
URT-23	0.5			2.0	2.5
VALVES	0.2			0.4	0.6
VLS	0.9	2.8		1.2	4.9
WSC-3	0.1			2.1	2.2
WSC-6	0.1			0.5	0.6
GROSS REQUIREMENT	54.9	116.6	51.3	206.8	429.6
CONTRACT TERMINATION	-5.5	-7.6	-2.9		-16.0
BOSS	-3.7	-6.2	-3.0		-12.9
EFFICIENCIES/PROGRAM ADJUSTMENT	-3.3	-16.7	-24.2	-6.1	-50.3
ASSET OFFSET		-23.6			-23.6
CREDIT MODS	-13.7	-19.2	-6.3	-5.0	-44.2
SUBTOTAL	28.7	43.3	14.9	195.7	282.6
PROVISIONING SELLDOWN					2.8
SYSTEM STOCK/FOLLOW-ON SYSTEM STOCK					8.6
TOTAL					294.0

DEPARTMENT OF NAVY, SUPPLY MANAGEMENT
OPERATING REQUIREMENT BY WEAPON SYSTEM
BUDGET PROJECT 34
(DOLLARS IN MILLIONS)

SM-3B

WEAPON SYSTEM	FY 1995 OUTFITTING	FY 1995 SPECIAL PROGRAMS	FY 1995 BASIC REPLEN	FY 1995 TOTAL	FY 1996 OUTFITTING	FY 1996 SPECIAL PROGRAMS	FY 1996 BASIC REPLEN	FY 1996 TOTAL	FY 1997 OUTFITTING	FY 1997 SPECIAL PROGRAMS	FY 1997 BASIC REPLEN	FY 1997 TOTAL
A-4			1.4	1.4			0.6	0.6			0.3	0.3
SUPPT EQUIPMT	5.1		28.7	33.8	0.7		17.3	18.0	0.2		16.3	16.5
HELOS	2.1	1.9	67.9	71.9	0.1	1.9	41.7	43.7			39.3	39.3
F-14		5.0	21.1	26.1		3.8	12.7	16.5		3.8	12.0	15.8
P-3			14.8	14.8			8.9	8.9			8.4	8.4
S-3		4.4	5.6	10.0		0.6	3.3	3.9			3.2	3.2
A-6/EA-6		2.7	3.7	6.4		1.8	1.1	2.9		1.3	0.7	2.0
E-2/C-2	0.2		6.6	6.8			4.0	4.0			3.7	3.7
AV-8	1.0		14.1	15.1	1.8		8.4	10.2	0.6		8.0	8.8
F/A-18A	9.7	91.0	67.8	168.5		78.4	41.3	119.7	2.7	79.5	39.8	122.0
CAT & ARREST			10.2	10.2	3.0		6.1	9.1	3.0		5.8	8.8
OTHER	10.1	4.0	16.9	31.0	10.3	4.0	10.2	24.5	6.9	4.0	9.7	20.6
TERM/CR MODS				(44.5)				(25.7)				(19.2)
CIT				(41.4)				(42.6)				(43.9)
LONG TERM CONTRACT				(6.6)				(7.0)				(2.1)
TOTAL	28.2	109.0	258.8	303.5	15.9	90.5	155.6	166.7	13.6	88.6	147.2	184.2
SYSTEM STOCK: INITIAL/FOLLOW-ON				5.2				1.2				1.0
OPERATING REQUIREMENT				308.7				167.9				185.2

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DEPARTMENT OF NAVY, SUPPLY MANAGEMENT
OPERATING REQUIREMENT BY WEAPON SYSTEM
BUDGET PROJECT 85
(DOLLARS IN MILLIONS)

	FY 1995				FY 1996				FY 1997			
WEAPON SYSTEM	OUTFITTING	SPECIAL PROGRAMS	BASIC REPLEN	TOTAL	OUTFITTING	SPECIAL PROGRAMS	BASIC REPLEN	TOTAL	OUTFITTING	SPECIAL PROGRAMS	BASIC REPLEN	TOTAL
A-4			2.0	2.0			2.6	2.6			1.0	1.0
SUPPT EQUIPMT	16.6		5.4	22.0	22.0		9.3	31.3	16.5		8.2	24.7
HELOS	81.5	6.7	32.5	120.7	24.5	1.8	59.5	85.8	23.0	0.3	58.6	81.9
F-14	6.5	19.5	17.2	43.2	6.2	22.7	28.7	57.6	5.8	21.2	27.3	54.3
P-3	3.2		12.2	15.4			17.8	17.8	1.2		13.2	14.4
S-3	7.8	22.7	6.9	37.4	4.3	12.8	12.9	30.0	2.2	16.4	12.8	31.4
A-6/EA-6	6.7		3.8	10.5	3.0		2.8	5.8	3.6		2.5	8.1
E-2/C-2	24.8		6.5	31.3	3.8		12.1	15.9	4.6		11.5	16.1
AV-8	29.2		7.0	32.7	65.7		10.2	75.9	43.2		10.3	53.5
F/A-18A	121.3	6.2	32.8	162.3	58.9	27.8	68.4	155.1	47.8	27.0	66.2	141.0
OTHER	50.5		3.7	54.2	113.4		7.0	120.3	105.8		7.1	112.7
TERM/CR MODS				(153.0)				(109.3)				(89.9)
TOTAL	348.1	57.1	130.0	378.7	301.8	65.1	231.3	488.8	253.7	64.9	218.7	447.2
SYSTEM STOCK: INITIAL/FOLLOW-ON				42.4				20.9				16.3
REPAIR				1,017.4				853.4				759.2
OPERATING REQUIREMENT				1,438.5				1,363.1				1,222.7

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DEPARTMENT OF NAVY, SUPPLY MANAGEMENT
OPERATING REQUIREMENT BY WEAPON SYSTEM
BUDGET PROJECT 65
(DOLLARS IN MILLIONS)

SM-3B

WEAPON SYSTEM	FY 1995 OUTFITTING	FY 1995 SPECIAL PROGRAMS	FY 1995 BASIC REPLEN	FY 1995 TOTAL	FY 1996 OUTFITTING	FY 1996 SPECIAL PROGRAMS	FY 1996 BASIC REPLEN	FY 1996 TOTAL	FY 1997 OUTFITTING	FY 1997 SPECIAL PROGRAMS	FY 1997 BASIC REPLEN	FY 1997 TOTAL
A-4			3.3	3.3			3.4	3.4			1.3	1.3
SUPPT EQUIPMT	27.4		8.9	36.3	28.6		12.1	40.7	22.2		11.0	33.2
HELOS	134.3	6.7	53.5	194.5	31.9	1.8	77.4	111.1	30.9	0.3	78.6	109.8
F-14	10.7	32.1	28.4	71.2	8.1	22.7	37.3	68.1	7.8	21.2	36.6	65.6
P-3	5.2		20.1	25.3			23.2	23.2	1.6		17.7	19.3
S-3	12.8	22.7	11.3	46.8	5.6	12.8	16.8	35.2	3.0	16.4	17.2	36.6
A-6/EA-6	11.1		6.2	17.3	3.9		3.6	7.5	4.8		3.4	8.2
E-2/C-2	40.9		10.7	51.6	5.0		15.7	20.7	6.2		15.5	21.7
AV-8	48.1		11.5	59.6	85.5		13.3	98.8	58.0		13.8	71.8
F/A-18A	200.0	8.2	54.1	262.3	76.7	36.2	89.0	201.9	64.1	36.2	88.9	189.2
OTHER	83.2		6.1	89.3	147.6		9.1	156.7	142.0		9.5	151.3
TERM/CR MODS				(153.0)				(109.3)				(89.9)
DMR SAVINGS				(325.8)				(169.2)				(170.9)
TOTAL	573.7	69.7	214.1	378.7	392.9	73.5	300.9	486.8	340.6	74.1	293.5	447.2
SYSTEM STOCK: INITIAL/FOLLOW-ON				42.4				20.9				16.3
REPAIR				1,017.4				853.4				758.2
OPERATING REQUIREMENT				1,438.5				1,363.1				1,222.7

0000040

DEFENSE BUSINESS OPERATIONS FUND
MARINE CORPS SUPPLY MANAGEMENT
BY WEAPON SYSTEM/CATEGORY
AMPHIBIOUS SUPPLIES
FY 1995
(Dollars in Millions)

WEAPON SYSTEM	BASIC REPLEN	OUTFITS	SPECIAL PROGRAMS	BASIC REWORK	TOTAL
RECURRING DEMANDS	0.3				0.3
					0.0
					0.0
					0.0
					0.0
					0.0
					0.0
TOTAL ORDNANCE TANK AUTOMOTIVE	0.3	0.0	0.0	0.0	0.3
UNIT LEVEL CIRCUIT SWITCH		0.3			0.3
RECURRING DEMANDS	0.7				0.7
					0.0
					0.0
					0.0
					0.0
					0.0
					0.0
					0.0
					0.0
					0.0
TOTAL COMMUNICATION AND ELECTRONICS	0.7	0.3	0.0	0.0	1.0
RECURRING DEMANDS	0.3				0.3
					0.0
					0.0
					0.0
					0.0
					0.0
					0.0
TOTAL ENGINEER SUPPORT AND CONSTRUCTION	0.3	0.0	0.0	0.0	0.3
RECURRING DEMANDS	0.4				0.4
					0.0
					0.0
					0.0
					0.0
					0.0
					0.0
TOTAL GENERAL PROPERTY	0.4	0.0	0.0	0.0	0.4
TOTAL	1.7	0.3	0.0	0.0	2.0

DEFENSE BUSINESS OPERATIONS FUND
MARINE CORPS SUPPLY MANAGEMENT
BY WEAPON SYSTEM/CATEGORY
AMPHIBIOUS SUPPLIES
FY 1996
(Dollars in Millions)

SM-38

WEAPON SYSTEM	BASIC REPLEN	OUTFITS	SPECIAL PROGRAMS	BASIC REWORK	TOTAL
RECURRING DEMANDS	0.5				0.5
					0.0
					0.0
					0.0
					0.0
					0.0
					0.0
TOTAL ORDNANCE TANK AUTOMOTIVE	0.5	0.0	0.0	0.0	0.5
UNIT LEVEL CIRCUIT SWITCH		0.2			0.2
RECURRING DEMANDS	0.7				0.7
					0.0
					0.0
					0.0
					0.0
					0.0
					0.0
					0.0
					0.0
TOTAL COMMUNICATION AND ELECTRONICS	0.7	0.2	0.0	0.0	0.9
					0.0
					0.0
					0.0
					0.0
					0.0
					0.0
					0.0
TOTAL ENGINEER SUPPORT AND CONSTRUCTION	0.0	0.0	0.0	0.0	0.0
RECURRING DEMANDS	0.5				0.5
					0.0
					0.0
					0.0
					0.0
					0.0
					0.0
TOTAL GENERAL PROPERTY	0.5	0.0	0.0	0.0	0.5
TOTAL	1.7	0.2	0.0	0.0	1.9

DEFENSE BUSINESS OPERATIONS FUND
MARINE CORPS SUPPLY MANAGEMENT
BY WEAPON SYSTEM/CATEGORY
AMPHIBIOUS SUPPLIES
FY 1997
(Dollars in Millions)

WEAPON SYSTEM	BASIC REPLEN	OUTFITS	SPECIAL PROGRAMS	BASIC REWORK	TOTAL
RECURRING DEMANDS	0.3				0.3
					0.0
					0.0
					0.0
					0.0
					0.0
					0.0
TOTAL ORDNANCE TANK AUTOMOTIVE	0.3	0.0	0.0	0.0	0.3
MARINE TACTICAL COMMAND AND CONTROL					0.0
SYSTEM (MTACCS)		0.7			0.7
RECURRING DEMANDS	0.6				0.6
					0.0
					0.0
					0.0
					0.0
					0.0
					0.0
					0.0
					0.0
TOTAL COMMUNICATION AND ELECTRONICS	0.6	0.7	0.0	0.0	1.3
RECURRING DEMANDS	0.2				0.2
					0.0
					0.0
					0.0
					0.0
					0.0
					0.0
TOTAL ENGINEER SUPPORT AND CONSTRUCTION	0.2	0.0	0.0	0.0	0.2
RECURRING DEMANDS	0.2				0.2
					0.0
					0.0
					0.0
					0.0
					0.0
					0.0
TOTAL GENERAL PROPERTY	0.2	0.0	0.0	0.0	0.2
TOTAL	1.3	0.7	0.0	0.0	2.0

January 1995

MARINE CORPS SUPPLY MANAGEMENT
BY WEAPON SYSTEM/CATEGORY
DEPOT LEVEL REPARABLES
FY 1995
(Dollars in Millions)

SM-38

WEAPON SYSTEM	BASIC REPLEN	OUTFITS	SPECIAL PROGRAMS	BASIC REWORK	TOTAL
AAV7A1 PIP		0.2			0.2
LAV PIP		0.2			0.2
LAV		2.5			2.5
MODIFICATION KITS (TRACKED VEHICLES)		1.6			1.6
LOGISTICS VEHICLE SYSTEM (LVS)		0.2			0.2
					0.0
BASIC REPLEN/REWORK	0.6			6.1	6.7
TOTAL ORDNANCE TANK AUTOMOTIVE	0.6	4.7	0.0	6.1	11.4
PEDESTAL MOUNTED STINGER					0.0
					0.0
					0.0
					0.0
					0.0
BASIC REPLEN/REWORK	0.6				0.6
TOTAL GUIDED MISSILES AND EQUIPMENT	0.6	0.0	0.0	0.0	0.6
TSC-96 PIP FLEET SATELLITE COMM TERM		0.2			0.2
UNIT LEVEL CIRCUIT SWITCH		8.3			8.3
TATICAL COMMUNICATION CENTER EQUIPMENT		1.6			1.6
JOINT TATICAL INFORMATION DIST. SYSTEM		0.6			0.6
ELECTRONIC TEST EQUIPMENT		0.1			0.1
SINCGARS RADIO SYSTEM		1.1			1.1
ADVANCED TACTICAL AIR COMMAND CONTROL		0.8			0.8
MARINE TATICAL COMMAND AND CONTROL SYSTEM		1.4			1.4
INTELLIGENCE SUPPORT EQUIPMENT		0.6			0.6
JOINT SEREVICE IMAGERY PROCESSING SYSTEM		1.7			1.7
MODIFICATION KITS (INTEL)		0.6			0.6
NIGHT VISION EQUIPMENT		3.0			3.0
BASIC REPLEN/REWORK	0.1			7.0	7.1
MODIFICATION KITS (NON-TEL)		0.2			0.2
TOTAL COMMUNICATION AND ELECTRONICS	0.1	20.2	0.0	7.0	27.3
ENGINEER SUPPORT TRACTOR		0.2			0.2
ARMORED COMBAT EXCAVATOR		0.3			0.3
CONTAINER HANDLER		0.3			0.3
BASIC REPLEN/REWORK	1.0			0.2	1.2
TOTAL ENGINEER SUPPORT AND CONTRUCTION	1.0	0.8	0.0	0.2	2.0
SHELTER FAMILY		0.1			0.1
BASIC REPLEN/REWORK	0.1				0.1
TOTAL GENERAL PROPERTY	0.1	0.1	0.0	0.0	0.2
TOTAL	2.4	25.8	0.0	13.3	41.5

January 1995

DEFENSE BUSINESS OPERATIONS FUND
MARINE CORPS SUPPLY MANAGEMENT
BY WEAPON SYSTEM/CATEGORY
DEPOT LEVEL REPARABLES
FY 1996
(Dollars in Millions)

SM-38

WEAPON SYSTEM	BASIC REPLEN	OUTFITS	SPECIAL PROGRAMS	BASIC REWORK	TOTAL
LAV PIP		0.5			0.5
LOGISTICS VEHICLE SYSTEM (LVS)		0.2			0.2
					0.0
					0.0
					0.0
					0.0
BASIC REPLEN/REWORK	3.6			6.1	9.7
TOTAL ORDNANCE TANK AUTOMOTIVE	3.6	0.7	0.0	6.1	10.4
PEDESTAL MOUNTED STINGER		0.1			0.1
					0.0
					0.0
					0.0
					0.0
					0.0
BASIC REPLEN/REWORK	0.6			0.2	0.8
TOTAL GUIDED MISSILES AND EQUIPMENT	0.6	0.1	0.0	0.2	0.9
TSC-96 PIP FLEET SATELLITE COMM.TERM		0.2			0.2
UNIT LEVEL CIRCUIT SWITCH (ULCS)		0.3			0.3
JOINT TACTICAL INFORMATION DIST. SYSTEM		2.5			2.5
SINCGARS RADIO SYSTEM		1.1			1.1
TATICAL AIR OPERATION MODULE (TAOM)		0.1			0.1
ADVANCED TACTICAL AIR COMMAND CENTRAL		1.1			1.1
MARINE TACTICAL COMMAND AND CONTROL SYSTEM		2.0			2.0
JOINT SERVICE IMAGAERY PROCESSING SYSTEM		2.1			2.1
METEOROLOGICAL SYSTEMS		0.9			0.9
INTELLIGENCE SUPPORT EQUIPMENT		7.0			7.0
MODIFICATION KITS (INTEL)		0.8			0.8
NIGHT VISION EQUIPMENT		0.5			0.5
BASIC REPLEN/REWORK	2.2			6.5	8.7
MODIFICATION KITS (NON-TEL)		1.0			1.0
TOTAL ENGINEER SUPPORT AND CONSTRUCTION	2.2	19.6	0.0	6.5	28.3
ENGINEER SUPPORT TRACTOR		0.1			0.1
CONTAINER HANDLER		0.1			0.1
BASIC REPLEN/REWORK	0.9			0.3	1.2
TOTAL ENGINEER SUPPORT CONSTRUCTION	0.9	0.2		0.3	1.4
SHELTER FAMILY		0.0		0.0	0.0
BASIC REPLEN/REWORK	0.1				0.1
TOTAL GENERAL PROPERTY	0.1	0.0		0.0	0.1
TOTAL	7.4	20.6	0.0	13.1	41.1

January 1995

DEFENSE BUSINESS OPERATIONS FUND
MARINE CORPS SUPPLY MANAGEMENT
BY WEAPON SYSTEM/CATEGORY
DEPOT LEVEL REPARABLES
FY 1997
(Dollars in Millions)

SM-38

WEAPON SYSTEM	BASIC REPLEN	OUTFITS	SPECIAL PROGRAMS	BASIC REWORK	TOTAL
LAV PIP		0.2		6.5	6.7
					0.0
					0.0
					0.0
					0.0
					0.0
BASIC REPLEN/REWORK	3.7				3.7
TOTAL ORDNANCE TANK AUTOMOTIVE	3.7	0.2	0.0	6.5	10.4
PEDESTAL MOUNTED STINGER				0.2	0.2
BASIC REPLEN/REWORK	0.6				0.6
TOTAL GUIDED MISSILES AND EQUIPMENT	0.6	0.0	0.0	0.2	0.8
MANPACK RADIOS AND EQUIPMENT		0.1			0.1
VEHICLE MTD. RADIOS AND EQUIPMENT		2.2			2.2
JOINT TACATICAL INFO DIST. SYSTEM		2.0			2.0
SINCGARS RADIO SYSTEM		0.7			0.7
GOBAL POSITIONING SYSTEM		0.1			0.1
TATICAL AIR OPERATIONS MODULEL		0.1			0.1
MARINE TATICAL COMMAND AND CONTROL SYSTEM		2.2			2.2
JOINT SERVICE IMAGERY PROCESSING SYSTEM		2.1			2.1
INTELLELGENCE SUPPORT EQUIPMENT		3.0			3.0
MODIFICATION KITS (INTEL)		0.8			0.8
NIGHT VISION EQUIPMENT		0.3			0.3
MODIFICATION KITS (NON-TEL)		1.9		6.6	8.5
BASIC REPLEN/REWORK	2.4				2.4
TOTAL COMMUNICATION AND ELECTRONICS	2.4	15.5	0.0	6.6	24.5
CONTAINER HANDLER		0.2		0.3	0.5
					0.0
BASIC REPLEN/REWORK	0.9				0.9
TOTAL ENGINEER SUPPORT AND CONSTRUCTION	0.9	0.2	0.0	0.3	1.4
SHELTER FAMILY					0.0
					0.0
					0.0
					0.0
					0.0
					0.0
BASIC REPLEN/REWORK	0.1				0.1
TOTAL GENERAL PROPERTY	0.1	0.0	0.0	0.0	0.1
TOTAL	7.7	15.9	0.0	13.6	37.2

DEPARTMENT OF NAVY, SUPPLY MANAGEMENT
INVENTORY STATUS
SUMMARY
(Dollars in Millions)
FISCAL YEAR 1994

	Total	Mobilization	Peacetime — Operating	Other
1. INVENTORY BOP	30,693.0	608.9	12,534.9	17,549.2
2. BOP INVENTORY ADJUSTMENTS	2,943.6	38.6	3,249.5	(344.5)
A. RECLASSIFICATION CHANGE (memo)	(0.0)	(0.1)	2,250.7	(2,250.6)
B. PRICE CHANGE AMOUNT (memo)	2,943.6	38.7	998.8	1,906.1
C. INVENTORY RECLASSIFIED AND REPRICED	33,636.6	647.5	15,784.4	17,204.7
3. RECEIPTS AT STANDARD	4,807.2	25.3	4,657.6	124.3
4. SALES AT STANDARD	7,045.3	0.4	7,044.9	0.0
5. INVENTORY ADJUSTMENTS				
A. CAPITALIZATIONS + or (-)	(1,291.6)	(15.3)	(478.4)	(797.9)
B. RETURNS FROM CUSTOMERS FOR CREDIT	428.3	0.4	285.4	142.5
C. RETURNS FROM CUSTOMERS, NO CREDIT	13,198.2	0.1	5,823.3	7,374.8
D. RETURNS TO SUPPLIERS (-)	(70.4)	0.0	(2.6)	(67.8)
E. TRANSFERS TO PROP. DISPOSAL (-)	(5,039.0)	(5.5)	5.5	(5,039.0)
F. ISSUES/RECEIPTS WITHOUT REIMBURSEMENT + or (-)	(889.6)	(18.6)	(246.4)	(624.6)
G. OTHER (list/explain)	(6,557.8)	(88.7)	(5,826.2)	(642.9)
H. TOTAL ADJUSTMENTS	(221.9)	(127.6)	(439.4)	345.1
6. INVENTORY EOP	31,176.6	544.8	12,957.7	17,674.1
7. INVENTORY EOP (REVALUED)	17,533.1	392.4	9,102.8	8,037.9
A. APPROVED ACQUISITION OBJECTIVE (memo)				3,829.0
B. ECONOMIC RETENTION (memo)				3,595.4
C. CONTINGENCY RETENTION (memo)				514.0
D. POTENTIAL DOD REUTILIZATION (memo)				99.5
8. INVENTORY ON ORDER EOP (memo)	2,911.6	87.0	2,709.7	114.9

9. NARRATIVE:

Other adjustments (line 5g):	Total	Mobilization	Operating	Other
Other Gains/Losses	(1,341.8)	19.8	(1,447.0)	85.4
Strata Transfers	0.0	(108.5)	836.8	(728.3)
Net/Standard Difference	(5,216.0)	0.0	(5,216.0)	0.0
Total	(6,557.8)	(88.7)	(5,826.2)	(642.9)

DEPARTMENT OF NAVY, SUPPLY MANAGEMENT
INVENTORY STATUS
SUMMARY
(Dollars in Millions)
FISCAL YEAR 1995

	Total	Mobilization	--- Peacetime --- Operating	Other
1. INVENTORY BOP	31,176.6	544.8	12,957.7	17,674.1
2. BOP INVENTORY ADJUSTMENTS	4,943.7	56.7	1,838.1	3,048.9
A. RECLASSIFICATION CHANGE (memo)	0.0	3.0	665.7	(668.7)
B. PRICE CHANGE AMOUNT (memo)	4,943.7	53.7	1,172.4	3,717.6
C. INVENTORY RECLASSIFIED AND REPRICED	36,120.3	601.5	14,795.8	20,723.0
3. RECEIPTS AT STANDARD	3,928.4	20.1	3,869.9	38.4
4. SALES AT STANDARD	7,148.3	0.0	7,148.3	0.0
5. INVENTORY ADJUSTMENTS				
A. CAPITALIZATIONS + or (-)	(782.6)	(0.9)	(108.7)	(673.0)
B. RETURNS FROM CUSTOMERS FOR CREDIT	369.0	0.5	101.8	266.7
C. RETURNS FROM CUSTOMERS, NO CREDIT	12,075.1	0.1	6,383.6	5,691.4
D. RETURNS TO SUPPLIERS (-)	(96.3)	0.0	(7.7)	(88.6)
E. TRANSFERS TO PROP. DISPOSAL (-)	(3,739.2)	0.0	0.1	(3,739.3)
F. ISSUES/RECEIPTS WITHOUT REIMBURSEMENT + or (-)	(456.0)	0.0	(66.8)	(389.2)
G. OTHER (list/explain)	(7,210.6)	(10.0)	(6,783.7)	(416.9)
H. TOTAL ADJUSTMENTS	159.4	(10.3)	(481.4)	651.1
6. INVENTORY EOP	33,059.8	611.3	11,036.0	21,412.5
7. INVENTORY EOP (REVALUED)	15,151.9	407.6	6,634.6	8,109.7
A. APPROVED ACQUISITION OBJECTIVE (memo)				4,021.6
B. ECONOMIC RETENTION (memo)				3,488.5
C. CONTINGENCY RETENTION (memo)				501.1
D. POTENTIAL DOD REUTILIZATION (memo)				98.5
8. INVENTORY ON ORDER EOP (memo)	2,525.0	48.5	2,366.0	110.5

9. NARRATIVE:

Other adjustments (line 5g):	Total	Mobilization	Operating	Other
Other Gains/Losses	(121.6)	0.0	(229.2)	107.6
Strata Transfers	0.0	(10.0)	534.5	(524.5)
Net/Standard Difference	(7,089.0)	0.0	(7,089.0)	0.0
Total	(7,210.6)	(10.0)	(6,783.7)	(416.9)

DEPARTMENT OF NAVY, SUPPLY MANAGEMENT
INVENTORY STATUS
SUMMARY
(Dollars in Millions)
FISCAL YEAR 1996

	Total	Mobilization	Peacetime Operating	Peacetime Other
1. INVENTORY BOP	33,059.8	611.3	11,036.0	21,412.5
2. BOP INVENTORY ADJUSTMENTS	(6,956.6)	(57.8)	304.6	(7,203.4)
A. RECLASSIFICATION CHANGE (memo)	0.0	0.0	2,643.5	(2,643.5)
B. PRICE CHANGE AMOUNT (memo)	(6,956.6)	(57.8)	(2,338.9)	(4,559.9)
C. INVENTORY RECLASSIFIED AND REPRICED	26,103.2	553.5	11,340.6	14,209.1
3. RECEIPTS AT STANDARD	3,932.1	17.1	3,899.2	15.8
4. SALES AT STANDARD	6,026.5	0.0	6,026.5	0.0
5. INVENTORY ADJUSTMENTS				
A. CAPITALIZATIONS + or (-)	(227.7)	0.0	(4.6)	(223.1)
B. RETURNS FROM CUSTOMERS FOR CREDIT	534.2	0.4	317.3	216.5
C. RETURNS FROM CUSTOMERS, NO CREDIT	7,993.3	0.1	4,005.1	3,988.1
D. RETURNS TO SUPPLIERS (-)	(62.1)	0.0	(9.4)	(52.7)
E. TRANSFERS TO PROP. DISPOSAL (-)	(2,900.8)	0.0	0.0	(2,900.8)
F. ISSUES/RECEIPTS WITHOUT REIMBURSEMENT + or (-)	(208.7)	0.0	(66.9)	(141.8)
G. OTHER (list/explain)	(5,161.1)	0.0	(3,989.3)	(1,171.8)
H. TOTAL ADJUSTMENTS	(32.9)	0.5	252.2	(285.6)
6. INVENTORY EOP	23,975.9	571.1	9,465.5	13,939.3
7. INVENTORY EOP (REVALUED)	14,724.6	420.5	7,212.2	7,091.9
A. APPROVED ACQUISITION OBJECTIVE (memo)				3,776.2
B. ECONOMIC RETENTION (memo)				2,822.6
C. CONTINGENCY RETENTION (memo)				414.4
D. POTENTIAL DOD REUTILIZATION (memo)				78.7
8. INVENTORY ON ORDER EOP (memo)	2,251.6	7.6	2,239.5	4.5

9. NARRATIVE:

Other adjustments (line 5g):	Total	Mobilization	Operating	Other
Other Gains/Losses	(126.6)	0.0	(197.8)	71.2
Strata Transfers	0.0	0.0	1,243.0	(1,243.0)
Net/Standard Difference	(5,034.5)	0.0	(5,034.5)	0.0
Total	(5,161.1)	0.0	(3,989.3)	(1,171.8)

DEPARTMENT OF NAVY, SUPPLY MANAGEMENT
INVENTORY STATUS
SUMMARY
(Dollars in Millions)
FISCAL YEAR 1997

	Total	Mobilization	--- Peacetime --- Operating	Other
1. INVENTORY BOP	23,975.9	571.1	9,465.5	13,939.3
2. BOP INVENTORY ADJUSTMENTS	2,046.0	21.2	2,221.8	(197.0)
A. RECLASSIFICATION CHANGE (memo)	0.0	0.0	1,552.1	(1,552.1)
B. PRICE CHANGE AMOUNT (memo)	2,046.0	21.2	669.7	1,355.1
C. INVENTORY RECLASSIFIED AND REPRICED	26,021.9	592.3	11,687.3	13,742.3
3. RECEIPTS AT STANDARD	3,755.6	2.7	3,748.1	4.8
4. SALES AT STANDARD	5,988.4	0.0	5,988.4	0.0
5. INVENTORY ADJUSTMENTS				
A. CAPITALIZATIONS + or (-)	(78.5)	0.0	22.2	(100.7)
B. RETURNS FROM CUSTOMERS FOR CREDIT	431.2	0.1	191.2	239.9
C. RETURNS FROM CUSTOMERS, NO CREDIT	8,710.1	0.1	4,759.4	3,950.6
D. RETURNS TO SUPPLIERS (-)	(53.3)	0.0	(2.0)	(51.3)
E. TRANSFERS TO PROP. DISPOSAL (-)	(3,047.8)	0.0	0.0	(3,047.8)
F. ISSUES/RECEIPTS WITHOUT REIMBURSEMENT + or (-)	(156.0)	0.0	(21.8)	(134.2)
G. OTHER (list/explain)	(5,356.3)	(11.0)	(4,626.9)	(718.4)
H. TOTAL ADJUSTMENTS	449.4	(10.8)	322.1	138.1
6. INVENTORY EOP	24,238.5	584.2	9,769.1	13,885.2
7. INVENTORY EOP (REVALUED)	13,809.6	414.6	6,854.9	6,540.1
A. APPROVED ACQUISITION OBJECTIVE (memo)				3,495.9
B. ECONOMIC RETENTION (memo)				2,582.5
C. CONTINGENCY RETENTION (memo)				389.2
D. POTENTIAL DOD REUTILIZATION (memo)				72.5
8. INVENTORY ON ORDER EOP (memo)	2,157.7	2.7	2,151.4	3.6

9. NARRATIVE:

DEPARTMENT OF NAVY, SUPPLY MANAGEMENT
WHOLESALE - SURCHARGE CALCULATION
(DOLLARS IN MILLIONS)

SM-5B

SHIPS/AVIATION	FY 95	FY 96	FY 97
1. CY Net sales at Cost	2412.0	2591.8	2399.4
2. +/- PY Material Inflation	-129.9	31.9	2.4
3. CY Net Sales @ PY Cost	2282.1	2623.7	2401.8
4. PY Surcharge	28.2%	46.8%	17.6%
5. CY Net Sales at PY Prices	2926.4	3850.5	2823.7
1A. CY Net sales at Cost	2412.0	2591.8	2399.4
4A. CY Surcharge	48.1%	15.1%	31.6%
5A. CY Net Sales at CY Prices	3572.0	2983.5	3156.5
PERCENT CHANGE TO CUSTOMER	22.1%	-22.5%	11.8%

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DEPARTMENT OF NAVY, SUPPLY MANAGEMENT
WHOLESALE - SURCHARGE CALCULATION
(DOLLARS IN MILLIONS)

SM-5B

BP14-SHIPS CONSUMABLES	FY 95	FY 96	FY 97
1. CY Net sales at Cost	89.4	59.4	62.3
2. +/- PY Material Inflation	-0.1	-1.4	-1.8
3. CY Net Sales @ PY Cost	89.3	58.0	60.5
4. PY Surcharge	51.8%	58.1%	15.1%
5. CY Net Sales at PY Prices	135.5	91.7	69.7
1A. CY Net sales at Cost	89.4	59.4	62.3
4A. CY Surcharge	58.1%	15.1%	31.6%
5A. CY Net Sales at CY Prices	141.3	68.4	82.0
PERCENT CHANGE TO CUSTOMER	4.3%	-25.4%	17.7%

000052

DEPARTMENT OF NAVY, SUPPLY MANAGEMENT
WHOLESALE - SURCHARGE CALCULATION
(DOLLARS IN MILLIONS)

SM-5B

BP34-AVIATION CONSUMABLES	FY 95	FY 96	FY 97
1. CY Net sales at Cost	349.6	237.2	201.0
2. +/- PY Material Inflation	0.3	6.0	-5.8
3. CY Net Sales @ PY Cost	349.9	243.2	195.2
4. PY Surcharge	13.5%	47.9%	15.1%
5. CY Net Sales at PY Prices	397.2	359.7	224.7
1A. CY Net sales at Cost	349.6	237.2	201.0
4A. CY Surcharge	47.9%	15.1%	31.5%
5A. CY Net Sales at CY Prices	517.0	273.1	264.4
PERCENT CHANGE TO CUSTOMER	30.2%	-24.1%	17.7%

000053

DEPARTMENT OF NAVY, SUPPLY MANAGEMENT
WHOLESALE - SURCHARGE CALCULATION
(DOLLARS IN MILLIONS)

SM-5B

BP81-SHIPS REPAIRABLES	FY 95	FY 96	FY 97
1. CY Net sales at Cost	528.3	437.5	464.5
2. +/- PY Material Inflation	-30.2	-7.2	-11.9
3. CY Net Sales @ PY Cost	498.1	430.3	452.6
4. PY Surcharge	53.9%	56.1%	15.3%
5. CY Net Sales at PY Prices	766.8	671.7	522.0
1A. CY Net sales at Cost	528.3	437.5	464.5
4A. CY Surcharge	56.5%	15.1%	31.5%
5A. CY Net Sales at CY Prices	826.6	503.6	611.0
PERCENT CHANGE TO CUSTOMER	7.8%	-25.0%	17.0%

000054

DEPARTMENT OF NAVY, SUPPLY MANAGEMENT
WHOLESALE - SURCHARGE CALCULATION
(DOLLARS IN MILLIONS)

SM-5B

BP85-AVIATION REPAIRABLES	FY 95	FY 96	FY 97
1. CY Net sales at Cost	1444.7	1857.7	1671.6
2. +/- PY Material Inflation	-99.9	34.5	21.9
3. CY Net Sales @ PY Cost	1344.8	1892.2	1693.5
4. PY Surcharge	21.0%	44.1%	18.5%
5. CY Net Sales at PY Prices	1626.9	2727.4	2007.3
1A. CY Net sales at Cost	1444.7	1857.7	1671.6
4A. CY Surcharge	44.5%	15.1%	31.6%
5A. CY Net Sales at CY Prices	2087.1	2138.4	2199.1
PERCENT CHANGE TO CUSTOMER	28.3%	-21.6%	9.6%

000055

DEPARTMENT OF NAVY, SUPPLY MANAGEMENT
MARINE CORPS WHOLESALE
Exhibit SM-5b Customer Price Change
($ IN MILLIONS)

Composite (BP54 & BP84)
(Consumable & Reparable)

	FY 95	FY 96	FY 97
1. Net Sales at Cost	33.2	39.2	27.4
2. Less: Mat'l Inflation Adj.	0.9	1.1	0.8
3. Revised Net Sales	32.3	38.1	26.6
4. Surcharge	15.6	13.3	10.4
5. Change to Customers			
a. Previous Year's Surcharge (%)	47.2%	51.6%	37.8%
b. This year's Surcharge divided by line 3 above ($)	51.6%	37.8%	42.1%
c. Percent change to customer	0.7%	-9.1%	-0.5%

000056

DEPARTMENT OF NAVY, SUPPLY MANAGEMENT
MARINE CORPS WHOLESALE
Customer Price Change SM-5B
($ IN MILLIONS)

Amphibious Supplies (BP 54)

	FY 95	FY 96	FY 97
1. Net Sales at Cost	8.8	8.9	6.7
2. Less: Mat'l Inflation Adj.	0.2	0.2	0.2
3. Revised Net Sales	8.6	8.7	6.5
4. Surcharge	4.5	3.7	3.3
5. Change to Customers			
a. Previous Year's Surcharge (%)	47.2%	51.7%	43.7%
b. This year's Surcharge divided by line 3 above ($)	51.7%	43.7%	52.8%
c. Percent change to customer	0.7%	-7.9%	3.2%

DEPARTMENT OF NAVY, SUPPLY MANAGEMENT
MARINE CORPS WHOLESALE
Exhibit SM-5b Customer Price Change
($ IN MILLIONS)

Depot Level Reparables (BP 84)

	FY 95	FY 96	FY 97
1. Net Sales at Cost	24.4	30.3	20.7
2. Less: Mat'l Inflation Adj.	0.7	0.9	0.6
3. Revised Net Sales	23.7	29.4	20.1
4. Surcharge	11.1	9.6	7.1
5. Change to Customers			
a. Previous Year's Surcharge (%)	47.2%	51.7%	39.5%
b. This year's Surcharge divided by line 3 above ($)	51.7%	39.5%	39.2%
c. Percent change to customer	0.7%	-10.6%	-3.2%

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FUEL DATA
(Dollars in Millions)
FY 1994
DEPARTMENT OF THE NAVY SUPPLY MANAGEMENT

PRODUCT	Barrels	Cost Per Barrel	Extended Cost	Stabilized Price
JP-4	0.0	0.0	0.0	$0.0
Distillates	19.4	32.8	635.6	$24.1
JP-5	11.7	35.7	416.7	$24.3
JP-8	0.0	0.0	0.0	$0.0
Motor Gas				
Leaded	0.0	40.7	0.1	$40.7
Unleaded	0.1	38.2	5.2	$24.6
Residual	0.9	25.6	22.1	$11.1
AVGAS	0.0	56.3	0.2	$63.0
AF				
Special Fuels 1 (JA-1)	0.0	0.0	0.0	$0.0
Special Fuels 2 (JP-TS)	0.0	0.0	0.0	$0.0
Gasohol	0.0	0.0	0.0	$0.0
Diesel	0.2	32.8	6.1	$32.8
Navy Reclaimed	0.8	16.0	13.5	$16.0
Other				
Bunker "C"	7.1	16.0	114.1	$11.1
Lube Oil	0.0	106.1	1.5	$87.0
Coal	0.0	52.0	1.7	$52.0
Navy Special	0.0	25.6	0.0	$15.0
Into Plane	0.0	0.0	0.0	$0.0
Other	0.0	36.7	0.2	$0.0
Total	40.3		1,217.0	

FUEL DATA
(Dollars in Millions)
FY 1995
* DEPARTMENT OF THE NAVY SUPPLY MANAGEMENT

PRODUCT	Barrels	Cost Per Barrel	Extended Cost	Stabilized Price
JP-4	0.0	29.8	0.0	$24.2
Distillates	19.0	28.6	544.7	$26.6
JP-5	10.9	30.7	334.7	$26.9
JP-8	0.0	0.0	0.0	$0.0
Motor Gas				
Leaded	0.0	35.3	0.1	$35.3
Unleaded	0.2	28.6	4.5	$27.1
Residual	0.8	17.6	14.5	$27.1
AVGAS	0.0	88.6	0.2	$69.5
AF				
Special Fuels 1 (JA-1)	0.0	0.0	0.0	$0.0
Special Fuels 2 (JP-TS)	0.0	0.0	0.0	$0.0
Gasohol	0.0	0.0	0.0	$0.0
Diesel	0.2	28.6	4.9	$28.6
Navy Reclaimed	0.6	17.2	10.3	$17.2
Other				
Bunker "C"	4.2	16.0	67.2	$12.3
Lube Oil	0.0	94.1	1.4	$96.1
Coal	0.0	52.2	1.2	$52.5
Navy Special	0.0	16.4	0.0	$16.6
Into Plane	0.0	0.0	0.0	$0.0
Other	0.0	35.3	0.1	$0.0
Total	36.0		983.7	

FUEL DATA
(Dollars in Millions)
FY 1996
'DEPARTMENT OF THE NAVY SUPPLY MANAGEMENT

PRODUCT	Barrels	Cost Per Barrel	Extended Cost	Stabilized Price
JP-4	0.0	0.0	0.0	$0.0
Distillates	18.1	30.7	554.7	$28.2
JP-5	10.5	32.8	344.4	$28.5
JP-8	0.0	0.0	0.0	$0.0
Motor Gas				
Leaded	0.0	37.8	1.2	$37.8
Unleaded	0.1	30.7	4.5	$28.8
Residual	0.8	18.5	14.1	$13.0
AVGAS	0.0	94.9	0.2	$73.8
AF				
Special Fuels 1 (JA-1)	0.0	0.0	0.0	$0.0
Special Fuels 2 (JP-TS)	0.0	0.0	0.0	$0.0
Gasohol	0.0	0.0	0.0	$0.0
Diesel	0.2	28.6	4.9	$0.0
Navy Reclaimed	0.6	18.9	11.4	$18.5
Other				
Bunker "C"	4.2	16.0	67.2	$13.9
Lube Oil	0.0	94.1	1.5	$102.0
Coal	0.0	52.2	1.2	$52.2
Navy Special	0.0	16.4	0.0	$17.6
Into Plane	0.0	0.0	0.0	$0.0
Other	0.0	36.0	0.1	$0.0
Total	34.6		1,005.5	

FUEL DATA
(Dollars in Millions)
FY 1997
DEPARTMENT OF THE NAVY SUPPLY MANAGEMENT

PRODUCT	Barrels	Cost Per Barrel	Extended Cost	Stabilized Price
JP-4	0.0	34.0	0.0	$27.2
Distillates	16.1	31.1	500.7	$29.9
JP-5	10.1	33.2	335.3	$30.2
JP-8	0.0	0.0	0.0	$0.0
Motor Gas				
Leaded	0.0	38.2	0.1	$39.6
Unleaded	0.1	31.1	4.5	$30.5
Residual	0.7	18.9	14.0	$13.8
AVGAS	0.0	95.3	2.9	$78.1
AF	0.0	0.0	0.0	0.0
Special Fuels 1 (JA-1)	0.0	0.0	0.0	$0.0
Special Fuels 2 (JP-TS)	0.0	0.0	0.0	$0.0
Gasohol	0.0	0.0	0.0	$0.0
Diesel	0.2	29.0	5.8	$0.0
Navy Reclaimed	0.5	19.3	10.4	$19.7
Other				
Bunker "C"	5.3	16.0	85.5	$14.7
Lube Oil	0.0	99.8	0.3	$108.0
Coal	0.0	52.2	1.2	$0.0
Navy Special	0.0	16.4	0.0	$18.6
Into Plane	0.0	0.0	0.0	$0.0
Other	0.0	36.1	0.1	$0.0
Total	33.3		960.9	

DEPARTMENT OF THE NAVY
SUMMARY OF PRICE, PROGRAM AND OTHER CHANGES
(In Millions of Dollars)

SUPPLY MANAGEMENT

		Cost of Operations FY 1994	Price Growth Percent	Price Growth Amount	Program & Other Changes	Cost of Operations FY 1995	Price Growth Percent	Price Growth Amount	Program & Other Changes	Cost of Operations FY 1996	Price Growth Percent	Price Growth Amount	Program & Other Changes	Cost of Operations FY 1997
	MILITARY PERSONNEL COMPENSATION													
010	Officer Composite	5.842	0.028	0.164	-1.079	4.927	0.030	0.148	1.626	6.701	0.030	0.201	-0.185	6.717
050	Enlisted Composite	1.179	0.028	0.033	-0.216	0.994	0.030	0.030	6.788	7.812	0.030	0.234	-0.363	7.683
	Total Military Personnel Compensation	7.021		0.197	-1.297	5.921		0.178	8.414	14.513		0.436	-0.548	14.400
	CIVILIAN PERSONNEL COMPENSATION													
101	Executive, General & Special Schedule	265.225		5.793	-18.618	252.400		4.688	-13.600	242.888		5.833	-13.372	234.949
103	Wage Board	29.360		1.018	-0.042	30.336		0.575	3.006	33.917		0.842	-1.907	32.852
104	Foreign National Direct Hire (FNDH)	0.000		0.000	0.000	0.000		0.000	0.000	0.000		0.000	0.000	0.000
105	Separation Liability (FNDH)	0.000		0.000	0.000	0.000		0.000	0.000	0.000		0.000	0.000	0.000
106	Benefits to Former Employees	0.000		0.000	0.000	0.000		0.000	0.000	0.000		0.000	0.000	0.000
107	Voluntary Separation & Incentive Payments	0.000		0.000	0.000	0.000		0.000	0.000	0.000		0.000	0.000	0.000
	Total Civilian Personnel Compensation	294.585		6.811	-18.660	282.736		5.263	-10.594	276.806		6.675	-15.279	267.801
	INVENTORY PROCUREMENT													
201	Other Consumable Purchases - Wholesale	0.000		0.000	0.000	0.000		0.000	0.000	0.000		0.000	0.000	0.000
202	Other Consumable Purchases - Retail	0.000		0.000	0.000	0.000		0.000	0.000	0.000		0.000	0.000	0.000
203	DLR Procurement (Replen) Purch - Wholesale	0.000		0.000	0.000	0.000		0.000	0.000	0.000		0.000	0.000	0.000
204	DLR Procurement (Replen) Purch - Retail	0.000		0.000	0.000	0.000		0.000	0.000	0.000		0.000	0.000	0.000
205	DLR Repair Purchases	0.000		0.000	0.000	0.000		0.000	0.000	0.000		0.000	0.000	0.000
	Organic (DBOF)	0.000		0.000	0.000	0.000		0.000	0.000	0.000		0.000	0.000	0.000
	From Army Dep Maint	0.000		0.000	0.000	0.000		0.000	0.000	0.000		0.000	0.000	0.000
	From Navy Dep Maint	0.000		0.000	0.000	0.000		0.000	0.000	0.000		0.000	0.000	0.000
	From Air Force Dep Maint	0.000		0.000	0.000	0.000		0.000	0.000	0.000		0.000	0.000	0.000
	Contract	0.000		0.000	0.000	0.000		0.000	0.000	0.000		0.000	0.000	0.000
208	Clothing Purchases	0.000		0.000	0.000	0.000		0.000	0.000	0.000		0.000	0.000	0.000
207	Medical/Dental Purchases	0.000		0.000	0.000	0.000		0.000	0.000	0.000		0.000	0.000	0.000
208	Fuel Purchases	0.000		0.000	0.000	0.000		0.000	0.000	0.000		0.000	0.000	0.000
209	Commissary/Subsistence Purchases	0.000		0.000	0.000	0.000		0.000	0.000	0.000		0.000	0.000	0.000
211	Returns (for credit) from Customers	0.000		0.000	0.000	0.000		0.000	0.000	0.000		0.000	0.000	0.000
	Total Inventory Procurement	0.000		0.000	0.000	0.000		0.000	0.000	0.000		0.000	0.000	0.000
	TRAVEL													
301	Per Diem	0.214		0.000	-0.032	0.182		0.000	0.006	0.188		0.000	0.000	0.188
302	Other Travel Costs	0.420	0.028	0.012	-0.095	0.337	0.030	0.010	0.017	0.364	0.030	0.011	0.000	0.375
303	MAC Passengers (DBOF)	0.000		0.000	0.000	0.000		0.000	0.000	0.000		0.000	0.000	0.000
307	Leased Vehicles	0.000		0.000	0.000	0.000		0.000	0.000	0.000		0.000	0.000	0.000
	Total Travel	0.634		0.012	-0.127	0.519		0.010	0.023	0.552		0.011	0.000	0.563
	MATERIAL, EQUIP & SUPPLIES (INTERNAL OPS)													
401	Fuel Purchases (Other than from Supp Ops)	0.000		0.000	0.000	0.000		0.000	0.000	0.000		0.000	0.000	0.000
415	DLA Managed Purchases	0.000		0.000	0.000	0.000		0.000	0.000	0.000		0.000	0.000	0.000
416	GSA Managed Supply Operations Purchases	26.374	0.028	0.738	-0.748	26.364	0.030	0.791	1.200	28.355	0.030	0.851	0.000	29.206
417	Locally Purch Supp & Mat (Other than fr Supp Ops)	28.278	0.028	0.792	-2.284	26.786	0.030	0.804	2.216	29.806	0.030	0.894	0.000	30.700
	Total Material, Equipment & Supplies	54.652		1.530	-3.032	53.150		1.595	3.416	58.161		1.745	0.000	59.906

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	OTHER INTRAFUND (DBOF) PURCHASES												
615	Navy Data Automation Centers	55.183	0.094	5.187	-10.578	49.792	0.001	0.050	-1.741	48.101	0.073	3.511	-2.845	48.787
633	Naval Publications and Printing Service	0.000	0.160	0.000	0.000	0.000	0.068	0.000	0.000	0.000	0.098	0.000	0.000	0.000
634	Naval Public Works Centers - Utilities	3.183	0.023	0.073	2.731	5.987	-0.030	-0.180	0.870	6.677	-0.022	-0.147	0.214	6.744
635	Naval Public Works Centers - Public Works	10.295	0.023	0.237	3.729	14.261	-0.029	-0.414	2.068	15.915	0.026	0.414	-0.255	16.074
637	Naval Shipyards	2.650	0.187	0.496	-0.432	2.714	0.000	0.000	0.090	2.804	0.049	0.137	-0.053	2.888
647	DISA Information Services	20.759	-0.013	-0.270	3.300	23.789	-0.038	-0.904	4.236	27.121	-0.069	-1.871	2.685	27.935
673	Defense Finance and Accounting Service	4.171	0.208	0.847	-0.715	4.303	-0.198	-0.832	3.672	7.143	0.064	0.451	-0.097	7.497
	Total Industrial Fund Purchases	96.241		6.570	-1.965	100.846		-2.280	9.195	107.761		2.495	-0.351	109.905
	TRANSPORTATION													
701	MAC Cargo (DBOF)	33.222	0.026	0.930	12.496	46.648	0.030	1.399	-3.553	44.494	0.030	1.335	-3.885	42.164
702	MAC SAAM (DBOF)	0.000		0.000	0.000	0.000		0.000	0.000	0.000		0.000	0.000	0.000
703	JCS Exercises (DBOF)	0.000		0.000	0.000	0.000		0.000	0.000	0.000		0.000	0.000	0.000
711	MSC Cargo (DBOF)	17.428	-0.232	-4.043	1.041	14.426	0.194	2.799	-3.716	13.509	0.144	1.945	-1.857	13.597
721	MTMC Port Handling (DBOF)	5.964	0.095	0.567	0.313	6.844	0.075	0.513	-0.237	7.120	0.099	0.705	-0.937	6.888
731	Commercial Air-nonpremimum	17.386	0.026	0.467	-16.043	1.830	0.030	0.055	0.000	1.885	0.030	0.057	0.000	1.942
751	Commercial Land-nonpremimum	51.131	0.026	1.432	7.463	60.026	0.030	1.801	-2.348	59.479	0.030	1.784	-2.561	58.702
755	Premimum/Overnight/Express	0.000		0.000	0.000	0.000		0.000	0.000	0.000		0.000	0.000	0.000
761	Other Transportation	0.000		0.000	0.000	0.000		0.000	0.000	0.000		0.000	0.000	0.000
	Total Transportation	125.131		-0.627	5.270	129.774		6.567	-9.854	126.487		5.826	-9.020	123.293
	DEPRECIATION/AMORTIZATION													
801	Real Property Maintenance (M&R)	0.333	0.000	0.000	4.267	4.600	0.000	0.000	9.754	14.354	0.000	0.000	0.431	14.785
802	Equipment, except ADPE and Telecom	0.017	0.000	0.000	0.283	0.300	0.000	0.000	0.000	0.300	0.000	0.000	0.000	0.300
803	ADPE and Telecom Resources	1.750	0.000	0.000	0.829	2.579	0.000	0.000	2.022	4.601	0.000	0.000	2.761	7.362
804	Software Development	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
805	Minor Construction	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
806	Management Improvement Initiatives	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
807	Major Construction (MILCON)	0.300	0.000	0.000	-0.300	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Total Depreciation/Amortization	2.400	0.000	0.000	5.079	7.479	0.000	0.000	11.776	19.255	0.000	0.000	3.192	22.447
	OTHER PURCHASED SERVICES													
901	Foreign National Indirect Hire (FNIH)	0.000	0.000	0.000	0.007	0.007	0.000	0.000	-0.007	0.000	0.000	0.000	0.000	0.000
902	Separation Liability	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
912	SLUC (GSA Leases)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
913	Purchased Utilities (Non DBOF)	2.068	0.028	0.056	0.028	2.172	0.030	0.062	-0.002	2.232	0.030	0.064	0.000	2.296
914	Purchased Communications (Non DBOF)	6.930	0.028	0.191	2.273	9.394	0.030	0.279	0.243	9.916	0.030	0.294	0.000	10.210
915	Rents & Leases	1.318	0.028	0.037	2.676	4.031	0.030	0.121	0.663	4.815	0.030	0.144	0.000	4.959
917	Postal Services	8.609	0.000	0.000	0.177	8.786	0.030	0.264	-0.111	8.939	0.000	0.000	0.000	8.939

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920 Supplies & Materials (Non DBOF)	0.889	0.026	0.025	0.000	0.914	0.030	0.027	0.000	0.941	0.030	0.026	0.000	0.969
921 Printing & Reproduction	0.000	0.026	0.000	0.000	0.000	0.030	0.000	0.000	0.000	0.030	0.000	0.000	0.000
922 Equipment Maintenance by Contract	1.199	0.026	0.034	0.000	1.233	0.030	0.037	0.265	1.555	0.030	0.047	0.000	1.602
923 Facility Maintenance by Contract	2.407	0.026	0.062	0.306	2.775	0.030	0.077	0.006	2.758	0.030	0.080	0.000	2.838
925 Equipment Purchases (Non DBOF)	0.200	0.026	0.006	0.000	0.206	0.030	0.006	0.000	0.212	0.030	0.006	0.000	0.218
931 Contract Consultants	0.015	0.026	0.000	0.000	0.015	0.030	0.000	0.000	0.015	0.030	0.000	0.000	0.015
932 Contract Studies & Analysis	6.902	0.026	0.193	-0.000	7.095	0.030	0.213	-0.007	7.301	0.030	0.219	-0.000	7.520
933 Prof & Management Services by Contract	0.268	0.026	0.008	0.000	0.276	0.030	0.008	0.000	0.284	0.030	0.009	0.000	0.293
934 Contract Eng & Technical Services (CETS)	0.000		0.000	0.000	0.000		0.000	0.000	0.000		0.000	0.000	0.000
941 Technical Drawings (Supply Ops only)	0.000		0.000	0.000	0.000		0.000	0.000	0.000		0.000	0.000	0.000
942 Forgings & Castings (Supply Ops only)	0.000		0.000	0.000	0.000		0.000	0.000	0.000		0.000	0.000	0.000
951 ADPE Maintenance	0.000		0.000	0.000	0.000		0.000	0.000	0.000		0.000	0.000	0.000
952 Software Development	0.000		0.000	0.000	0.000		0.000	0.000	0.000		0.000	0.000	0.000
953 Reimbursements to Distribution Depots	265.835	0.000	0.000	11.955	277.990	-0.061	-0.200	-38.889	237.701	0.053	0.100	-23.311	214.490
954 Reimbursements to DLSC/DAASO/DRMS	67.700	0.000	0.000	-14.181	53.519	0.000	0.000	-36.212	17.307	0.000	0.000	0.519	17.826
989 Other Engineering Services & Support	0.200	0.026	0.000	0.000	0.200	0.030	0.000	0.000	0.200	0.030	0.000	0.000	0.200
987 Other Intragovernmental Purchases	0.000	0.026	0.000	0.491	0.491	0.030	0.015	0.673	1.179	0.030	0.035	0.441	1.655
989 Other Contracts	5.980	0.026	0.167	0.278	6.425	0.030	0.193	-0.007	6.611	0.030	0.198	-0.000	6.809
998 Other Costs	54.498	0.026	1.516	-32.431	23.585	0.030	0.699	8.814	32.898	0.030	0.984	10.732	44.614
Total Other Purchases	425.038		2.297	-26.421	399.114		1.801	-64.551	334.864		2.206	-11.619	325.453
TOTAL COST OF OPERATIONS (Includes Reimbursements)	1005.702		16.790	-43.153	979.539		13.134	-52.175	938.398		19.395	-33.625	923.768

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Supply Management Capital Budget Summary
Department of the Navy
Date: January 1995
($ in Millions)

Line Number	Item Description	FY 1994		FY 1995		FY 1996		FY 1997	
		Quant	Total Cost	Quant	Total Cost	Quant	Total Cost	Quant	Total Cost
0001	1b. Non-ADP Equipment (>25,000<500,000)		0.032		0.014		0.100		0.100
	Subtotal Equipment (>25,000<500,000)		0.032		0.014		0.100		0.100
	2a. ADP Equipment (>100,000)								
0002	- BLC (Replacement)		1.177		0.001				
0003	- JLSC				1.500		12.000		10.000
0004	- PRIMIS		0.125		0.000				
0005	- JEDMICS (Productivity)		3.493		2.481		4.244		4.392
	Subtotal ADP Equipment (>100,000)		4.795		3.982		16.244		14.392
	2b. ADP Equipment (>25,000<100,000)								
	Subtotal ADP Equipment (>25,000<100,000)		0.000		0.000		0.000		0.000
0006	3. Minor Construction		0.369		0.400		0.300		0.300
	Subtotal Minor Construction		0.369		0.400		0.300		0.300
	GRAND TOTAL CAPITAL PURCHASE PROGRAM		5.196		4.396		16.644		14.792

990000

SUPPLY OPERATIONS CAPITAL PURCHASES JUSTIFICATION

BUDGET SUBMISSION
FY 1996 PRESIDENT'S

COMPONENT/BUSINESS AREA/DATE	*01 ITEM DESCRIPTION*
NAVY/SUPPLY MANAGEMENT/JANUARY 1995	**OTHER SUPPLY SUPPORT EQUIPMENT**

ELEMENTS OF COST	QTY	FY 1995 UNIT COST	TOTAL COST	QTY	FY 1996 UNIT COST	TOTAL COST	QTY	FY 1997 UNIT COST	TOTAL COST
01 SHOP & OFFICE EQUIPMENT					VAR	100		VAR	100

Narrative Justification

Shop and Office Equipment - This program replaces obsolete equipment which is beyond economical repair and procures new equipment which will enable a unit to perform more effectively.

Needs are fulfilled based on priorities determined by the requester and the Headquarters staff. Emphasis is given to replacing older equipment and to procuring those items which will provide productivity improvement. The following are examples of equipment procured under this program: *retrieval systems, communications systems and public works shop equipment.*

290067

SUPPLY OPERATIONS CAPITAL PURCHASES JUSTIFICATION

BUDGET SUBMISSION
FY 96/97 PRESIDENT'S

COMPONENT/BUSINESS AREA/DATE	*ITEM DESCRIPTION*
NAVY/SUPPLY MANAGEMENT/JANUARY 1995	**JEDMICS**

ELEMENTS OF COST	FY 1996 QTY	FY 1996 UNIT COST	FY 1996 TOTAL COST	FY 1997 QTY	FY 1997 UNIT COST	FY 1997 TOTAL COST
JEDMICS (Equipment)	0	0	4.244	0	0	4.392

Narrative Justification

JEDMICS - is an OSD-directed effort in response to Congressional direction in PL 96-525 to develop a centralized automated system to index, store, retrieve, and distribute technical drawings. The Joint Engineering Data Management Information and Control System (JEDMICS) which was developed in response to Congressional direction, replaces labor intensive, inefficient manual and semi-automated technical repositories with automated central repositories for all engineering and manufacturing information on ships, aircraft and electronics. This information is used by the fleet shore establishment and industry in support of spares acquisition, equipment maintenance and modernization and preparation of technical publications.

JEDMICS was designated the DoD standard system for storing engineering drawings by ASD C31 ltr of 14 Nov 1991. FY 1996 and FY1997 dollars are being used for technology refreshment and follow-on expansion to additional users for the eight primary technical data repositories.

A pre-investment economic analysis was completed/approved before JEDMICS received MAISRC authority to proceed with implementation. The discounted savings investment ratio is 1.5. Total program benefits for life cycle 1992 thru 2005 are projected at $42.4M.

SUPPLY OPERATIONS CAPITAL PURCHASES JUSTIFICATION

BUDGET SUBMISSION
FY 96/97 PRESIDENT'S

COMPONENT/BUSINESS AREA/DATE	*ITEM DESCRIPTION*
NAVY/SUPPLY MANAGEMENT/JANUARY 1995	**Material Management Standard System (MMSS)**

ELEMENTS OF COST	FY 1996 QTY	FY 1996 UNIT COST	FY 1996 TOTAL COST	FY 1997 QTY	FY 1997 UNIT COST	FY 1997 TOTAL COST
Materiel Management Standard System (Equipment)	0	0	12.0	0	0	10.0

Narrative Justification

Materiel Management Standard System - These funds are to support the fielding of the Materiel Management Standard System (MMSS) being developed by the Joint Logistics Systems Center to Navy and Marine Corps Inventory Control Points (ICPs). During the recent budget review, the responsibility for acquisition of hardware for fiscal years 1995-1997 was transferred from the JLSC to the Military Services and the Defense Logistics Agency (DLA).

The MMSS was created in response to the DoD initiative to standardize logistics systems across DoD. Over the past two years the JLSC, working with the services and DLA, has evaluated the processes of the DoD ICPs, selected and developed the most optimum automated information systems to support improved standard business practices. These funds continue the deployment of these systems to the Department ICPs.

The MMSS will provide a radically improved functional capability to the services and DLA, reduce DoD costs for information services and establish a systems infrastructure on which DoD can improve the way it does business. Specific improvements include:

-- Reduced inventories through better management
-- Reduced labor requirements
-- Reduced overhead costs
-- Improved control of assets

SUPPLY OPERATIONS CAPITAL PURCHASES JUSTIFICATION

BUDGET SUBMISSION
FY 96/97 PRESIDENT'S

COMPONENT/BUSINESS AREA/DATE	*ITEM DESCRIPTION*
	Materiel Management Standard System

Narrative Justification (continuation):

Once implementation is completed, legacy applications will be reduced or eliminated, decreasing ADP costs markedly.

The projected reductions in the DoD inventories cannot be met without an improved supply management information infrastructure. In addition, the Department cannot comply with its objective to standardize information systems and business practices and effectively implement throughout the Department ICPs. This initiative supports the sustainment of readiness in a downsizing environment.

020000

SUPPLY OPERATIONS CAPITAL PURCHASES JUSTIFICATION

BUDGET SUBMISSION
FY 1996 PRESIDENT'S

COMPONENT/BUSINESS AREA/DATE NAVY/SUPPLY MANAGEMENT/JANUARY 1995							*04 ITEM DESCRIPTION* MINOR CONSTRUCTION		
ELEMENTS OF COST	QTY	FY 1995 UNIT COST	TOTAL COST	QTY	FY 1996 UNIT COST	TOTAL COST	QTY	FY 1997 UNIT COST	TOTAL COST
04 MINOR CONSTRUCTION					VAR	300		VAR	300

Narrative Justification

Minor Construction - Minor construction is the erection, installation, or assembly of new real property, or the addition, expansion, extension, alteration or replacement of existing real property to meet ever changing requirements. For example, construct main gates at both ASO & SPCC.

000071

FY 1995 DBOF Capital Program Reconcilliation

FY 1995 DBOF Capital Purchases
Funding Disposition of Deferrals, Cancellations, Substitutions

The following describes the changes in the Capital Purchase Program from the FY 1995 President's Budget to the FY 1995 column of the FY 1996/1997 President's Budget. The categories are as follows:

a.) Category of purchase/project name, as noted in the FY 1995 President's Budget
b.) Disposition of project: cancellation, deferral and/or substitution
c.) Disposition of related funding

240000

FY 1995 DBOF CAPITAL PURCHASES
FUNDING DISPOSITION OF DEFERRALS, CANCELLATIONS, SUBSTITUTIONS

Department of the Navy
($ in 000)

1. Supply Management - Naval Supply Systems Command
   a. ADP Equipment/Joint Engineering Data Mgmt Info & Control System — $32
   b. Deferral
   c. N/A. Obligational authority and TOA removed by Congressional action

2. Logistics Support - Naval Supply Systems Command
   a. Non-ADP Equipment/Hazardous Inventory Control System — $1,910
   b. Deferral
   c. N/A. Obligational authority and TOA removed by Congressional action

3. Logistics Support - Naval Supply Systems Command
   a. Software Development/Uniform ADP System for Stock Points Level II — $1,362
   b. Cancellation
   c. N/A. Obligational authority and TOA removed by Congressional action

4. Logistics Support - Naval Supply Systems Command
   a. Software Development/Electronic Data Interchange — $400
   b. Deferral
   c. N/A. Obligational authority and TOA removed by Congressional action

000073

FY 1995 DBOF Capital Program Reconciliation

FY 1995 DBOF Capital Purchases
Deferrals, Cancellations, Substitutions

The following describes the changes in the Capital Purchase Program from the FY 1995 President's Budget to the FY 1995 column of the FY 1996/1997 President's Budget. The categories are as follows:

a.) Category of purchase/project name, as noted in the FY 1995 President's Budget
b.) Disposition of project: cancellation, deferral and/or substitution
c.) Explanation for cancellation or deferral and substitution

000074

FY 1995 DBOF CAPITAL PURCHASES
DEFERRALS, CANCELLATIONS, SUBSTITUTIONS

Department of the Navy
($ in 000)

1. Supply Management - Naval Supply Systems Command	
a. ADP Equipment/Joint Engineering Data Mgmt Info & Control System	
b. Deferral	$32
c. Congressional reduction to DBOF capital program	
2. Logistics Support - Naval Supply Systems Command	
a. Non-ADP Equipment/Hazardous Inventory Control System	
b. Deferral	$1,910
c. Congressional reduction to DBOF captial program	
3. Logistics Support - Naval Supply Systems Command	
a. Software Development/Uniform ADP System for Stock Points Level II	
b. Cancellation	$1,362
c. Program completed earlier than anticipated	
4. Logistics Support - Naval Supply Systems Command	
a. Software Development/Electronic Data Interchange	
b. Deferral	$400
c. Congressional reduction to DBOF capital program	

000075

DEFENSE BUSINESS OPERATIONS FUND - NAVY
FY 1996 / FY 1997
BUDGET ESTIMATE

LOGISTICS SUPPORT ACTIVITIES BUSINESS AREA

Background

The Navy Logistics Support Business area of the Defense Business Operations Fund provides for the management of miscellaneous supply related services to afloat and ashore customers in a specific geographic region. These services include contract management reviews, large and small procurements in support of fleet units, port services for docked ships, and the load out of combat logistics force ships for Fleet commanders.

Cost of this business area include, but are not limited to, civilian labor, military personnel at these installations, depreciation, and capital assets.

Budget Highlights:

The revenue for Logistics Support through FY 1994 is recouped in the Wholesale surcharge. In FY 1995 and the outyears the following changes have been incorporated:

Personal Property: The costs to staff and operate the personal property offices located at the Fleet and Industrial Supply Centers (FISCs) have been removed from the Logistics Support business area and will be direct funded in O&M,N starting in FY 1995. DBOF Supply Operations costs have been reduced commensurately.

Retail Supply Management: The revenue required to cover management and operations costs of SERVMARTS and retail inventories at the FISCs has been removed from the Wholesale surcharge and is recouped directly from the retail customer who is benefiting from these services starting in FY 1995.

Direct Funding: After review of the numerous functions included in this business area it has been determined that some functions do not meet the four criteria established in the DBOF Improvement Plan. Therefore, these functions will be moved to direct O&M,N funding starting in FY 1996. The functions removed include: contracting, service craft, port services, terminal operations, outfitting and logistics support for Fleet units, and general and administrative costs incurred for others.

The remaining functions in Logistics Support are

regional logistics support functions, reimbursable fuel operations, reduced environmental costs, other support services, reduced real property maintenance, and capital purchases supporting the CONUS FISCs.

Quantitative Summary:

	FY 1994	FY 1995	FY 1996	FY 1997
Revenues ($M)	$248.6	$225.0	$126.6	$125.5
Cost ($M)	$248.6	$225.6	$126.0	$125.5
Net Operating Result	$ 0	$ -.6	$ .6	$ 0
Accumulated Operating Result	$ 0	$ -.6	$ 0	$ 0
Civilian End Strength	3000	2172	123	123
Military End Strength	220	186	155	156
Civilian Workyears	3006	2375	155	153
Military Workyears	220	186	155	156

Capital Budget:

This budget finances the procurement of capital equipment, management information systems, and minor construction. These items are depreciated over the useful life of the asset, with the cost of depreciation included in the material surcharge.

LOGISTICS SUPPORT _ NAVY
REVENUE & EXPENSES
(Dollars in Millions)

	FY 1994	FY 1995	FY 1996	FY 1997
Revenue:				
Gross Sales:				
Operations				
Depreciation except Maj Const	6.9	17.3	19.6	21.8
Major Construction Depreciation	4.1	0.0		
Total Gross Sales	11.0	17.3	19.6	21.8
Other Income	64.8	65.6	81.5	77.5
Total Income	75.8	82.9	101.1	99.3
Expenses:				
Cost of Material Sold from Inventory				
Negotiated Purchases from Customers				
Transportation	0.0	0.0	0.0	0.0
Salaries and Wages:				
Military Personnel	12.4	9.4	7.4	7.4
Civilian Personnel	116.7	83.0	6.4	6.6
Materials, Supplies and				
Parts used in Operations	23.2	2.9	3.1	3.2
Facility Repair Charge	1.6	1.7	1.7	1.8
Depreciation - Capital	11.0	17.3	19.6	21.8
Contracted Engineering Services				
Lease Costs	3.1	3.2	3.2	3.2
Purchased Utilities	7.7	7.9	7.7	7.8
Purchased Communications	6.5	6.7	6.8	7.0
Equipment Maintenance	0.0	0.0	0.0	0.0
Fuel				
Other Expenses	66.3	93.6	70.1	66.7
Total Expenses	248.6	225.6	126.0	125.5
Operating Result	-172.8	-142.7	-24.9	-26.2
Less Capital Surcharge				
Plus Appropriations Affecting NOR/AOR				
Other Changes Affecting NOR/AOR(Supply Mgt.)	172.8	142.1	25.5	26.2
Net Operating Result	0.0	-0.6	0.6	0.0
Accumulated Operating Result	0.0	-0.6	0.0	0.0

DEPARTMENT OF THE NAVY
SUMMARY OF PRICE, PROGRAM AND OTHER CHANGES
(In Millions of Dollars)

LOGISTICS SUPPORT

		Cost of Operations FY 1994	Price Growth Percent	Price Growth Amount	Program & Other Changes	Cost of Operations FY 1995	Price Growth Percent	Price Growth Amount	Program & Other Changes	Cost of Operations FY 1996	Price Growth Percent	Price Growth Amount	Program & Other Changes	Cost of Operations FY 1997
	MILITARY PERSONNEL COMPENSATION													
010	Officer Composite	6.331	0.026	0.177	-1.715	4.793	0.030	0.144	-1.240	3.697	0.030	0.111	-0.152	3.656
050	Enlisted Composite	6.059	0.026	0.170	-1.641	4.588	0.030	0.138	-1.001	3.725	0.030	0.112	-0.111	3.726
	Total Military Personnel Compensation	12.390		0.347	-3.356	9.381		0.282	-2.241	7.422		0.223	-0.263	7.382
	CIVILIAN PERSONNEL COMPENSATION													
101	Executive, General & Special Schedule	87.665		1.910	-28.814	60.761		1.234	-57.328	4.667		0.113	0.025	4.805
103	Wage Board	29.061		1.009	-7.801	22.269		0.476	-20.991	1.754		0.042	0.032	1.828
104	Foreign National Direct Hire (FNDH)	0.000		0.000		0.000				0.000				0.000
105	Separation Liability (FNDH)	0.000		0.000		0.000				0.000				0.000
106	Benefits to Former Employees					0.000				0.000				0.000
107	Voluntary Separation & Incentive Payments					0.000								
	Total Civilian Personnel Compensation	116.726		2.919	-36.615	83.030		1.710	-78.319	6.421		0.155	0.057	6.633
	INVENTORY PROCUREMENT													
201	Other Consumable Purchases - Wholesale					0.000				0.000				0.000
202	Other Consumable Purchases - Retail					0.000				0.000				0.000
203	DLR Procurement (Replen) Purch - Wholesale					0.000				0.000				0.000
204	DLR Procurement (Replen) Purch - Retail					0.000				0.000				0.000
205	DLR Repair Purchases	0.000		0.000	0.000	0.000			0.000	0.000			0.000	0.000
	Organic (DBOF)	0.000		0.000	0.000				0.000	0.000			0.000	0.000
	From Army Dep Maint									0.000				0.000
	From Navy Dep Maint									0.000				0.000
	From Air Force Dep Maint									0.000				0.000
	Contract									0.000				0.000
206	Clothing Purchases					0.000				0.000				0.000
207	Medical/Dental Purchases					0.000				0.000				0.000
208	Fuel Purchases					0.000				0.000				0.000
209	Commissary/Subsistence Purchases					0.000				0.000				0.000
211	Returns (for credit) from Customers					0.000				0.000				0.000
	Total Inventory Procurement	0.000	0.000	0.000	0.000	0.000		0.000	0.000	0.000		0.000	0.000	0.000
	TRAVEL													
301	Per Diem	0.194		0.000	0.000	0.194		0.000	-0.083	0.111		0.000	0.000	0.111
302	Other Travel Costs	0.582	0.026	0.016	0.000	0.598	0.030	0.018	-0.252	0.364	0.030	0.011	0.000	0.375
303	MAC Passengers (DBOF)					0.000		0.000		0.000		0.000		0.000
307	Leased Vehicles					0.000		0.000		0.000		0.000		0.000
	Total Travel	0.776		0.016	0.000	0.792		0.018	-0.335	0.475		0.011	0.000	0.486
	MATERIAL, EQUIP & SUPPLIES (INTERNAL OPS)													

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DEPARTMENT OF THE NAVY
SUMMARY OF PRICE, PROGRAM AND OTHER CHANGES
(In Millions of Dollars)

LOGISTICS SUPPORT

		Cost of Operations FY 1994	Price Growth Percent	Price Growth Amount	Program & Other Changes	Cost of Operations FY 1995	Price Growth Percent	Price Growth Amount	Program & Other Changes	Cost of Operations FY 1996	Price Growth Percent	Price Growth Amount	Program & Other Changes	Cost of Operations FY 1997
401	Fuel Purchases (Other than from Supp Ops)			0.000		0.000		0.000		0.000		0.000		0.000
415	DLA Managed Purchases	0.000		0.000		0.000		0.000		0.000		0.000		0.000
416	GSA Managed Supply Operations Purchases	5.353	0.028	0.150	-2.813	2.690	0.030	0.081	-0.003	2.768	0.030	0.083	0.000	2.851
417	Locally Purch Supp & Mat (Other than fr Supp Ops)	17.873	0.028	0.500	-18.189	0.184	0.030	0.006	0.143	0.333	0.030	0.010	0.000	0.343
	Total Material, Equipment & Supplies	23.226		0.650	-21.002	2.874		0.087	0.140	3.101		0.093	0.000	3.194
	OTHER INTRAFUND (DBOF) PURCHASES													
615	Navy Data Automation Centers	4.180	-0.054	-0.226	0.000	3.954	0.001	0.004	0.063	4.021	0.073	0.294	-0.300	4.015
633	Naval Publications and Printing Service	0.000	0.160	0.000		0.000	-0.068	0.000		0.000	0.005	0.000		0.000
634	Naval Public Works Centers - Utilities	7.459	0.024	0.179	0.000	7.638	-0.030	-0.229	0.068	7.477	-0.022	-0.164	0.228	7.541
635	Naval Public Works Centers - Public Works	16.586	0.022	0.365	-0.504	16.447	-0.029	-0.477	0.337	16.307	0.029	0.473	-0.334	16.446
637	Naval Shipyards	0.000	0.187	0.000		0.000	0.000	0.000		0.000	0.049	0.000		0.000
647	DISA Information Services	11.289	-0.013	-0.147	-0.216	10.926	-0.038	-0.415	1.029	11.540	-0.069	-0.796	1.125	11.869
673	Defense Finance and Accounting Service	8.868	0.208	1.849	-0.204	10.533	-0.198	-2.086	-2.684	5.763	0.064	0.369	-0.030	6.102
	Total Industrial Fund Purchases	48.402		2.020	-0.924	49.498		-3.203	-1.187	45.108		0.176	0.689	45.973
	TRANSPORTATION													
701	MAC Cargo (DBOF)					0.000		0.000		0.000		0.000		0.000
702	MAC SAAM (DBOF)					0.000		0.000		0.000		0.000		0.000
703	JCS Exercises (DBOF)					0.000		0.000		0.000		0.000		0.000
711	MSC Cargo (DBOF)					0.000				0.000				0.000
721	MTMC Port Handling (DBOF)					0.000		0.000		0.000		0.000		0.000
731	Commercial Air-nonpremimum					0.000		0.000		0.000		0.000		0.000
751	Commercial Land-nonpremimum					0.000		0.000		0.000		0.000		0.000
755	Premimum/Overnight/Express					0.000		0.000		0.000		0.000		0.000
761	Other Transportation					0.000		0.000		0.000		0.000		0.000
	Total Transportation	0.000		0.000	0.000	0.000		0.000	0.000	0.000		0.000	0.000	0.000
	DEPRECIATION/AMORTIZATION													
801	Real Property Maintenance (M&R)	1.050		0.000	2.700	3.750		0.000	0.109	3.859		0.000	0.116	3.975
802	Equipment, except ADPE and Telecom	1.247		0.000	4.992	6.239		0.000		6.239		0.000		6.239
803	ADPE and Telecom Resources	2.931		0.000	1.388	4.319		0.000	1.054	5.373		0.000	0.810	6.183
804	Software Development	1.720		0.000	1.274	2.994		0.000	1.113	4.107		0.000	1.267	5.374
805	Minor Construction			0.000		0.000		0.000		0.000		0.000		0.000
806	Management Improvement Initiatives			0.000		0.000		0.000		0.000		0.000		0.000
807	Major Construction (MILCON)	4.100		0.000	-4.100	0.000		0.000	0.000	0.000		0.000	0.000	0.000
	Total Depreciation/Amortization	11.048		0.000	6.254	17.302	0.000	0.000	2.276	19.578	0.000	0.000	2.193	21.771
	OTHER PURCHASED SERVICES													

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DEPARTMENT OF THE NAVY
SUMMARY OF PRICE, PROGRAM AND OTHER CHANGES
(In Millions of Dollars)

LOGISTICS SUPPORT

		Cost of Operations FY 1994	Price Growth Percent	Price Growth Amount	Program & Other Changes	Cost of Operations FY 1995	Price Growth Percent	Price Growth Amount	Program & Other Changes	Cost of Operations FY 1996	Price Growth Percent	Price Growth Amount	Program & Other Changes	Cost of Operations FY 1997
901	Foreign National Indirect Hire (FNIH)	2.610		0.031	-1.726	0.915		0.019	-0.934	0.000		0.000	0.000	0.000
902	Separation Liability	0.081		0.001	-0.053	0.029		0.000	-0.029	0.000		0.000	0.000	0.000
912	SLUC (GSA Leases)			0.000	0.000	0.000		0.000	0.000	0.000		0.000	0.000	0.000
913	Purchased Utilities (Non DBOF)	0.247	0.028	0.007	0.000	0.254	0.030	0.008	-0.013	0.249	0.030	0.007	0.000	0.256
914	Purchased Communications (Non DBOF)	6.479	0.028	0.181	0.000	6.660	0.030	0.200	-0.087	6.773	0.030	0.203	0.000	6.976
915	Rents & Leases	3.117	0.028	0.087	0.000	3.204	0.030	0.096	-0.150	3.150	0.030	0.095	0.000	3.245
921	Printing & Reproduction	0.000	0.028	0.000	0.000	0.000	0.030	0.000	0.000	0.000	0.030	0.000	0.000	0.000
922	Equipment Maintenance by Contract	0.000	0.028	0.000	0.000	0.000	0.030	0.000	0.000	0.000	0.030	0.000	0.000	0.000
923	Facility Maintenance by Contract	1.615	0.028	0.045	0.000	1.660	0.030	0.050	-0.002	1.708	0.030	0.051	0.000	1.759
931	Contract Consultants	0.000	0.028	0.000	0.000	0.000	0.030	0.000	0.000	0.000	0.030	0.000	0.000	0.000
932	Contract Studies & Analysis	0.000	0.028	0.000	0.000	0.000	0.030	0.000	0.000	0.000	0.030	0.000	0.000	0.000
933	Prof & Management Services by Contract	0.000	0.028	0.000	0.000	0.000	0.030	0.000	0.000	0.000	0.030	0.000	0.000	0.000
934	Contract Eng & Technical Services (CETS)	0.000	0.028	0.000	0.000	0.000	0.030	0.000	0.000	0.000	0.030	0.000	0.000	0.000
941	Technical Drawings (Supply Ops only)	0.000	0.028	0.000	0.000	0.000	0.030	0.000	0.000	0.000	0.030	0.000	0.000	0.000
942	Forgings & Castings (Supply Ops only)	0.000	0.028	0.000	0.000	0.000	0.030	0.000	0.000	0.000	0.030	0.000	0.000	0.000
951	ADPE Maintenance	0.000	0.028	0.000	0.000	0.000	0.030	0.000	0.000	0.000	0.030	0.000	0.000	0.000
952	Software Development	0.000	0.028	0.000	0.000	0.000	0.030	0.000	0.000	0.000	0.030	0.000	0.000	0.000
953	Reimbursements to Distribution Depots				0.000	0.000			0.000	0.000			0.000	0.000
954	Reimbursements to DLSC/DAASO/DRMS				0.000	0.000			0.000	0.000			0.000	0.000
989	Other Engineering Services & Support	0.000	0.028	0.000	0.000	0.000	0.030	0.000	0.000	0.000	0.030	0.000	0.000	0.000
987	Other Intragovernmental Contracts	0.000	0.028	0.000	0.218	0.218	0.030	0.007	0.206	0.431	0.030	0.013	0.007	0.451
989	Other Contracts	1.618	0.028	0.045	-0.017	1.646	0.030	0.049	0.041	1.736	0.030	0.052	0.000	1.788
998	Other Costs	20.227	0.028	0.566	26.581	47.374	0.030	1.421	-18.343	30.452	0.030	0.914	-1.074	30.292
	Total Other Purchases	35.994		0.963	25.003	61.960		1.850	-19.311	44.499		1.335	-1.067	44.767
	TOTAL COST OF OPERATIONS	248.562		6.915	-30.640	224.837		0.744	-98.977	126.604		1.993	1.609	130.206

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Logistics Support Capital Budget Summary
Department of the Navy
Date: January 1995
($ in Millions)

Line Number	Item Description	FY 1994		FY 1995		FY 1996		FY 1997	
		Quant	Total Cost	Quant	Total Cost	Quant	Total Cost	Quant	Total Cost
	1a. Non-ADP Equipment (>500,000)								
0001	- Auto Material Handling Sys (Replacement)	1	0.780	1	0.000	1	0.300	1	0.300
0002	- Hazardous Inventory Control System (HICs)		5.424		4.386		4.455		4.455
	Subtotal Equipment (>500,000)	1	6.204	1	4.386	1	4.755	1	4.755
0003	1b. Non-ADP Equipment (>25,000<500,000)	39	2.215	47	0.573	62	4.623	70	4.705
	Subtotal Equipment (>25,000<500,000)	39	2.215	47	0.573	62	4.623	70	4.705
0004	2. ADP Equipment (>25,000<100,000)		8.945		4.927		5.607		5.007
	Subtotal ADP Equipment (>25,000<100,000)		8.945		4.927		5.607		5.007
	3. Software Development (Software>100,000)	85	7.280	89	4.889	89	5.843	89	6.861
0005	- APADE	2.6	0.223	3	0.238	3	0.238	3	0.256
0006	- CD ROM		0.000	6	0.476	6	0.477	6	0.512
0007	- E-MAIL		0.000	1	0.079	1	0.079	1	0.085
0008	- LAN		0.000	4	0.317	4	0.318	4	0.341
0009	- Level II	15.6	1.336		0.000		0.000		0.000
0010	- UDAPS-SP/U2	58.5	5.010	58.2	2.462	58.2	3.412	58.2	4.251
0011	- LOGMARS/EPOS	2.3	0.197	4.6	0.365	4.6	0.366	4.6	0.392
0012	- UADPS-ICP		0.000	3	0.238	3	0.238	3	0.256
0013	- Transportation	6	0.514	9	0.714	9	0.715	9	0.768
0014	4. Minor Construction		0.787		0.003		0.800		0.800
	GRAND TOTAL CAPITAL PURCHASE PROGRAM	125	25.431	137	14.778	152	21.628	160	22.128

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SUPPLY OPERATIONS CAPITAL PURCHASES JUSTIFICATION

BUDGET SUBMISSION
FY 1996 PRESIDENT'S

COMPONENT/BUSINESS AREA/DATE NAVY/LOGISTICS SUPPORT/JANUARY 1995							*01 ITEM DESCRIPTION* AUTOMATED MATERIAL HANDLING			
ELEMENTS OF COST	QTY	FY 1995 UNIT COST	TOTAL COST	QTY	FY 1996 UNIT COST	TOTAL COST	QTY	FY 1997 UNIT COST	TOTAL COST	
01 AUTOMATED MATERIAL HANDLING SYS				1	VAR	300	1	VAR	300	

Narrative Justification

Automated Material Handling System - The existing conveyor systems in Buildings 474, 475, and 452 at FISC Pearl Harbor were installed in 1941 and updated in 1985. This system consists of approximately 5 miles of tote pan conveyor used to transport binnable receipts to storage, issues to packing, and packed issues to shipping. The system has outlived its useful life. Maintenance costs are high and spare parts are hard to find. This project is imperative since fleet readiness and shorebased logistical support are dependent upon availability of reliable AMHS. Funding for this project will allow FISC Pearl Harbor to increase utilization of both manpower and equipment and will improve the efficiency and productivity of warehouse operations.

If not funded, this system will become a safety hazard and NAVSUP will continue to spend maintenance dollars on a system that has outlived its usefulness.

000083

SUPPLY OPERATIONS CAPITAL PURCHASES JUSTIFICATION

BUDGET SUBMISSION
FY 1996 PRESIDENT'S

COMPONENT/BUSINESS AREA/DATE NAVY/LOGISTICS SUPPORT/JANUARY 1995										*02 ITEM DESCRIPTION* HAZARDOUS INVENTORY CONTROL SYSTEM
ELEMENTS OF COST	QTY	FY 1995 UNIT COST	TOTAL COST	QTY	FY 1996 UNIT COST	TOTAL COST	QTY	FY 1997 UNIT COST	TOTAL COST	
02 HAZARDOUS INV CONTROL SYSTEMS					VAR	4,455		VAR	4,455	

Narrative Justification

FISC HAZMAT MANAGEMENT INITIATIVES: Establishment of comprehensive hazardous material reutilization programs at all FISCs. Projected funding requirement based on detailed estimate for startup of FISC single service point at NAVBASE San Diego which was funded in FY 1992 as well as initial rough order magnitude (ROM) estimates from all other FISCs.

HMC&M PROTOTYPE SYSTEM EQUIPMENT: Each installation is expected to cost approximately $170-$180K for initial hardware to support a networked system. The fiscal year 1996 and 1997 requirements will fund 11 systems for operational shore activities in each fiscal year.

IMPLEMENTATION OF AFLOAT HAZARDOUS MATERIAL CONTROL SYSTEM: Funding is required to outfit all Navy afloat commands with necessary hardware and software to operate the Hazardous Material Inventory Control System (HICS), a method for managing hazardous material which minimizes usage and reduces waste. FY 1996 and 1997 requirements will cover installation on all small ships, including submarines.

000084

SUPPLY OPERATIONS CAPITAL PURCHASES JUSTIFICATION

BUDGET SUBMISSION
FY 1996 PRESIDENT'S

COMPONENT/BUSINESS AREA/DATE NAVY/LOGISTICS SUPPORT/JANUARY 1995										*03 ITEM DESCRIPTION* FORKLIFT TRUCKS
ELEMENTS OF COST	QTY	FY 1995 UNIT COST	TOTAL COST	QTY	FY 1996 UNIT COST	TOTAL COST	QTY	FY 1997 UNIT COST	TOTAL COST	
03 FORKLIFT TRUCKS				62	VAR	1,423	70	VAR	1,655	

Narrative Justification

Forklift Trucks - This program funds the procurement of new/initial outfitting and replacement material handling equipment (MHE) requirements for the Fleet and Industrial Supply Centers (FISC) and Inventory Control Points (ICP).

Equipment which is not replaced at the end of it's expected service life becomes uneconomical to maintain, unsafe, unreliable, and unable to sustain increased operational tempos. Many of the over-aged forklifts currently in service are technologically obsolete, impacting mission capabilities. Additional intangible costs are also incurred, such as: increased manpower requirements, productivity losses, ineffective space utilization, material damage, and leasing costs. New replacement equipment enables activities to meet handling and logistical requirements in an efficient and effective manner.

000085

SUPPLY OPERATIONS CAPITAL PURCHASES JUSTIFICATION

BUDGET SUBMISSION
FY 1996 PRESIDENT'S

COMPONENT/BUSINESS AREA/DATE NAVY/LOGISTICS SUPPORT/JANUARY 1995										
	03 ITEM DESCRIPTION OTHER SUPPLY SUPPORT EQUIP									
ELEMENTS OF COST	FY 1995 QTY	FY 1995 UNIT COST	FY 1995 TOTAL COST	FY 1996 QTY	FY 1996 UNIT COST	FY 1996 TOTAL COST	FY 1997 QTY	FY 1997 UNIT COST	FY 1997 TOTAL COST	
03 SHOP & OFFICE EQUIP					VAR	600		VAR	600	

Narrative Justification

Shop and Office Equipment - This program replaces obsolete equipment which is beyond economical repair and procures new equipment which will enable a unit to perform more effectively. Items purchased are used at Fleet and Industrial Supply Centers (FISCs). Activities identify requirements annually. ***In the recent past, these requirements have exceeded funding available by a factor of 3 to 1.***

Needs are fulfilled based on priorities determined by the requestor and the Headquarters staff. Emphasis is given to replacing older equipment and to procuring those items which will provide productivity improvement. The following are examples of equipment procured under this program: retrieval systems, communications systems, public works shop equipment, fuel testing equipment and mooring aids. If sufficient funding is not provided, equipment will break down more frequently, impacting productivity and the safety of the workforce.

000086

SUPPLY OPERATIONS CAPITAL PURCHASES JUSTIFICATION

BUDGET SUBMISSION
FY 1996 PRESIDENT'S

COMPONENT/BUSINESS AREA/DATE NAVY/LOGISTICS SUPPORT/JANUARY 1995										*03 ITEM DESCRIPTION* COLLATERAL EQUIPMENT
ELEMENTS OF COST	QTY	FY 1995 UNIT COST	TOTAL COST	QTY	FY 1996 UNIT COST	TOTAL COST	QTY	FY 1997 UNIT COST	TOTAL COST	
03 COLLATERAL EQUIPMENT					VAR	200		VAR	250	

Narrative Justification

Collateral Equipment - Collateral equipment is essential for the initial outfitting of Military Construction projects. Examples of items procurred include forklift trucks, furniture, storage racks, etc.

FY 1996 funds are requested for racks and MHE for a general purpose warehouse at FISC Guam and SERVMART addition at FISC Jacksonville, and FY 1997 funds are requested for a partial outfitting of new BEQ at FISC Cheatham Annex and out outfitting of a new fire station at FISC Puget Sound.

000087

SUPPLY OPERATIONS CAPITAL PURCHASES JUSTIFICATION

BUDGET SUBMISSION
FY 1996 PRESIDENT'S

COMPONENT/BUSINESS AREA/DATE NAVY/LOGISTICS SUPPORT/JANUARY 1995							*03 ITEM DESCRIPTION* CIVIL ENGINEERING SUPPORT EQUIPMENT			
ELEMENTS OF COST	QTY	FY 1995 UNIT COST	TOTAL COST	QTY	FY 1996 UNIT COST	TOTAL COST	QTY	FY 1997 UNIT COST	TOTAL COST	
03 CIVIL ENG SUPPORT EQUIP				63	VAR	2,400	73	30	2,200	

Narrative Justification

Civil Engineering Support Equipment - This program funds the procurement of overaged non-passenger carrying vehicles (stake trucks, pickup/utility trucks and panel trucks/vans for FISCs and ICPs.

Equipment which is not replaced at the end of its expected life becomes uneconomical to maintain, unsafe, and unreliable. At present, NAVSUP field activities have approximately 700 vehicles that will eventually need replacing.

000088

SUPPLY OPERATIONS CAPITAL PURCHASES JUSTIFICATION

BUDGET SUBMISSION
FY 96/97 PRESIDENT'S

COMPONENT/BUSINESS AREA/DATE	*05 ITEM DESCRIPTION*
NAVY/LOGISTICS SUPPORT/JANUARY 1995	BLC

ELEMENTS OF COST	QTY	FY 1996 UNIT COST	TOTAL COST	QTY	FY 1997 UNIT COST	TOTAL COST
05 BLC (Equipment)	0	0	2.207	0	0	2.207

Narrative Justification

Base Level Computing - Base Level Computing (BLC) is a program designed to replace and upgrade the aging interface between the end user at the keyboard and the Defense Information Systems Office (DISO) data center, for NAVSUP managed activities and other activities using the Uniform Data Processing System for Stock Points (UADPS-SP). This interface will also support the CIM system which ultimately replaces UADPS-SP. The overall program concept is described in a Mission Need Statement (MNS) approved by the Assistant Secretary of the Navy (ASN(RD&A)) and milestone decision authority was delegated to the Naval Supply Systems Command (NAVSUP). The program consists of a number of individual and independent Abbreviated System Decision Papers (ASDPs) which conform to the overall concept described in the approved MNS. The ASDPs include the justification and economic analysis associated with the work at each individual site.

The BLC Program is phased over time and the initial installations should be completed in FY97 although equipment will be replaced continuously in the future. During FY96 and FY97 we will continue equipment installations at Fleet Industrial Supply Centers (FISCs) which began in FY94 and FY95 and will begin work at other smaller activities. The ultimate goal is to build an architecture which will support a three tier computing and information system architecture which locates processing at the most economical and technically efficient level, and is consistent with overall DoD information system plan. If executed in accordance with the overall plan described in the MNS, the BLC Program will, over time, significantly improve ashore supply processing for the fleet.

680089

SUPPLY OPERATIONS CAPITAL PURCHASES JUSTIFICATION

BUDGET SUBMISSION
FY 96/97 PRESIDENT'S

COMPONENT/BUSINESS AREA/DATE	*05 ITEM DESCRIPTION*
NAVY/LOGISTICS SUPPORT/JANUARY 1995	**LOGMARS**

ELEMENTS OF COST	FY 1996 QTY	FY 1996 UNIT COST	FY 1996 TOTAL COST	FY 1997 QTY	FY 1997 UNIT COST	FY 1997 TOTAL COST
05 LOGMARS (Equipment)	0	0	2.400	0	0	2.300

Narrative Justification

LOGMARS - The Logistics Applications of Automated Marking and Reading Symbols (LOGMARS) funds provide ships and stock points with capability to "read" bar coded information for entry into existing computer systems. LOGMARS has generated significant cost avoidance savings in the functional area of physical inventory, inventory location survey, material receiving and issue, and government property accounting as documented in the final report of the OSD-sponsored LOGMARS Steering Group. In order to utilize bar coded data, the funding will provide the necessary equipment and programs to interface with existing computer systems. With greater emphasis on acquisition of commercial products and the associated bar codes, this will place greater emphasis on automated source data entry initiatives. Increased productivity, data accuracy, and visibility and control of inventories will be realized with LOGMARS technology.

Funding continues to equip Navy activities ashore and afloat with bar code equipment and programs. As equipment ages and technology advances, there will continue to be a need to replace obsolete equipment and old equipment that breaks down as the cost for repair approaches the cost of replacement. Also, replacement equipment is required when equipment is no longer being manufactured.

000090

SUPPLY OPERATIONS CAPITAL PURCHASES JUSTIFICATION

BUDGET SUBMISSION
FY 96/97 PRESIDENT'S

COMPONENT/BUSINESS AREA/DATE	*05 ITEM DESCRIPTION*
NAVY/LOGISTICS SUPPORT/JANUARY 1995	**LOGMARS**

DMRD 987 Inventory Reduction Plan Improvement (IRP) specifically cites LOGMARS as a new technology that the services must continue to implement to enhance readiness, responsiveness, productivity inventory control and the overall quality of support.

000091

SUPPLY OPERATIONS CAPITAL PURCHASES JUSTIFICATION

BUDGET SUBMISSION
FY 96/97 PRESIDENT'S

COMPONENT/BUSINESS AREA/DATE	*11 ITEM DESCRIPTION*
NAVY/LOGISTICS SUPPORT/JANUARY 1995	**UADPS-SP/U2**

ELEMENTS OF COST	FY 1996 QTY	FY 1996 UNIT COST	FY 1996 TOTAL COST	FY 1997 QTY	FY 1997 UNIT COST	FY 1997 TOTAL COST
11 UADPS-SP/U2 (Equipment)	0	0	1.000	0	0	.500

Narrative Justification

260000

UADPS-SP - The Uniform ADP System for Stock Points (UADPS-SP) is the standard, Navy-wide automated supply and financial management application system designed to support Navy operating forces. An enhancement of UADPS-SP, called UADPS-SP/U2, expands the current UADPS-SP functionality to incorporate the concept of "regionalization" of inventory management within the Department of Defense. These capital investment requirements support peripheral and telecommunications infrastructure required to support implementation of UADPS-SP/U2 at all potential Fleet and Industrial Supply Centers (FISCs) and partner sites (the FISCs become the Navy's primary provider of regional logistics support services). All expenditures of these funds are supported by business case analyses. These investments fully support both the Defense Information Infrastructure (DII) initiative and the Regional Maintenance plan endorsed by the Chief of Naval Operations.

SUPPLY OPERATIONS CAPITAL PURCHASES JUSTIFICATION

BUDGET SUBMISSION
FY 96/97 PRESIDENT'S

COMPONENT/BUSINESS AREA/DATE	*09 ITEM DESCRIPTION*
NAVY/LOGISTICS SUPPORT/JANUARY 1995	**LOGMARS/EPOS**

ELEMENTS OF COST	QTY	FY 1996 UNIT COST	FY 1996 TOTAL COST	QTY	FY 1997 UNIT COST	FY 1997 TOTAL COST
09 LOGMARS/EPOS (CDA)	4.6	79.481	.366	4.6	85.305	.392

Narrative Justification

LOGMARS - The Logistics Applications of Automated Marking and Reading Symbols (LOGMARS) equipment funding provides ships and stock points with the capability to "read" bar coded information for entry into existing computer systems. LOGMARS has generated significant cost avoidance savings in the functional area of physical inventory, inventory location survey, material receiving and issue, and government property accounting as documented in the final report of the OSD-sponsored LOGMARS Steering Group. Increased productivity, data accuracy, and visibility and control of inventories will be realized with LOGMARS technology, and these benefits contribute to improved Fleet support and readiness.

The CDA efforts reflected here support software modifications required to implement Electronic Point of Sale (EPOS) initiatives within the LOGMARS technology.

000182

SUPPLY OPERATIONS CAPITAL PURCHASES JUSTIFICATION

BUDGET SUBMISSION
FY 96/97 PRESIDENT'S

COMPONENT/BUSINESS AREA/DATE NAVY/LOGISTICS SUPPORT/JANUARY 1995	*11 ITEM DESCRIPTION* Compact Disc-Read Only Memory (CD-ROM)					
ELEMENTS OF COST	**QTY**	**FY 1996 UNIT COST**	**TOTAL COST**	**QTY**	**FY 1997 UNIT COST**	**TOTAL COST**
11 CD-ROM (CDA)	**6**	**79.481**	**.477**	**6**	**85.305**	**.512**

000094

Narrative Justification

CD-ROM- The Compact Disc-Read Only Memory (CD-ROM) provides information digitally for direct use with personal computers replacing both paper and microfiche as a means to distribute manuals, publications, and data bases. CD-ROM is one of the technologies whose primary importance is increasing the currency, consistency, security, and the accessibility of information. This product provides massive storage capacity, saves money on warehousing and mailing costs, and increases productivity by providing data in a rapid lookup and retrieval mode. A single CD-ROM can hold 300,000 pages of text which equates to 2,500 pounds of paper, takes up 120 feet of shelf space and costs $958 to mail. A single CD-ROM weighs 0.7 ounces, takes less than an inch of space and costs $.75 to mail. CD-ROM is the most practical and economical media for the multiple distribution of digital data. Real savings are to be achieved from the reduction of printing, decreased mailings, less necessary manpower for the handling of documents, and the diminished need for warehouse space.

SUPPLY OPERATIONS CAPITAL PURCHASES JUSTIFICATION

BUDGET SUBMISSION
FY 96/97 PRESIDENT'S

COMPONENT/BUSINESS AREA/DATE NAVY/LOGISTICS SUPPORT/JANUARY 1995						*11 ITEM DESCRIPTION* ITIMP EDI UADPS-ICP (CDA)						
ELEMENTS OF COST							**QTY**	**FY 1996 UNIT COST**	**TOTAL COST**	**QTY**	**FY 1997 UNIT COST**	**TOTAL COST**
11 ITIMP EDI UADPS-ICP (CDA)							**3**	**79.481**	**.238**	**3**	**85.305**	**.256**

Narrative Justification

ITIMP- These Central Design Agency (CDA) resources will be modifying ADP programs for enhancements to Integrated Technical, Item Management and Procurement (ITIMP) to accommodate Inventory Control Point (ICP) procurement Electronic Data Interchange (EDI) including expanding upon baseline transactions to incorporate the 841 transaction set for commercial and organic manufacturing solicitations.

S60000

SUPPLY OPERATIONS CAPITAL PURCHASES JUSTIFICATION

BUDGET SUBMISSION
FY 96/97 PRESIDENT'S

COMPONENT/BUSINESS AREA/DATE NAVY/LOGISTICS SUPPORT/JANUARY 1995						*08 ITEM DESCRIPTION* UDAPS-SP/UADPS-2						
							FY 1996			FY 1997		
ELEMENTS OF COST						QTY	UNIT COST	TOTAL COST	QTY	UNIT COST	TOTAL COST	
08 UADPS-SP/U2 (CDA)						42.9	79.481	3.412	49.8	85.305	4.251	

960000

Narrative Justification

UDAPS-SP/U2- The Uniform Automated Data Processing System for Stock Points (UADPS-SP) is the Navy-wide automated supply, financial and resources management application system designed to support Navy operating forces. It is a Navy legacy system operated at over 35 Naval Commands including Fleet and Industrial Supply Centers (FISCs), Naval Air Stations, Naval Shipyards and Training Centers. The UADPS-SP system provides uniform logistics data support to the Chief on Naval Operations, Commander in Chief Atlantic Fleet (CINCLANTFLT), Commander in Chief Pacific Fleet (CINCPACFLT), Chief of Naval Education and Training, Chief of Naval Reserves, Comptroller of the Navy, and Commandant of the Marine Corps. This system is operated primarily at Defense Information Systems Agency (DISA) ADP installations and at several remote activities.

SUPPLY OPERATIONS CAPITAL PURCHASES JUSTIFICATION

BUDGET SUBMISSION
FY 96/97 PRESIDENT'S

COMPONENT/BUSINESS AREA/DATE	*08 ITEM DESCRIPTION*
NAVY/LOGISTICS SUPPORT/JANUARY 1995	**UDAPS-SP/UADPS-2**

Narrative Justification

The Central Design Agency (CDA) efforts reflected herein are directed toward complying with OSD/Congressionally-mandated changes, and corrective software maintenance efforts. An additional CDA effort for this AIS has been directed toward incorporating the FISC facts of CNO Management Review Initiative #20 which provides the necessary functionality to complement Corporate Information Management (CIM) enterprise-wide systems. Specifically, these efforts provide the necessary management tools:

- **To reduce inventory and infrastructure costs through centralized inventory management and expanded regional asset visibility.**
- **To supply centralized management of separate consumer inventories to the "wrench-turner" level.**
- **To consolidate geographic "stovepipe" inventories under a single ADP system to achieve personnel and inventory.**
- **To expand consumer level asset visibility and sharing.**
- **To achieve cost avoidance as legacy systems are eliminated.**

260009?

SUPPLY OPERATIONS CAPITAL PURCHASES JUSTIFICATION

BUDGET SUBMISSION
FY 96/97 PRESIDENT'S

COMPONENT/BUSINESS AREA/DATE NAVY/LOGISTICS SUPPORT/JANUARY 1995	*06 ITEM DESCRIPTION* APADE					
ELEMENTS OF COST	**QTY**	**FY 1996 UNIT COST**	**TOTAL COST**	**QTY**	**FY 1997 UNIT COST**	**TOTAL COST**
06 APADE (CDA)	**3**	**79.481**	**.238**	**3**	**85.305**	**.256**

000098

Narrative Justification

APADE- These Central Design Agency (CDA) personnel are modifying Automation of Procurement and Accounting Data Entry (APADE) programs for enhancements to accommodate small purchase, Electronic Data Interchange (EDI) and non-standard requisitioning and demand data reporting by Fleet and Industrial Supply Center (FISC) procurement centers.

SUPPLY OPERATIONS CAPITAL PURCHASES JUSTIFICATION

BUDGET SUBMISSION
FY 96/97 PRESIDENT'S

COMPONENT/BUSINESS AREA/DATE	*11 ITEM DESCRIPTION*
NAVY/LOGISTICS SUPPORT/JANUARY 1995	**E-MAIL**

ELEMENTS OF COST	FY 1996 QTY	FY 1996 UNIT COST	FY 1996 TOTAL COST	FY 1997 QTY	FY 1997 UNIT COST	FY 1997 TOTAL COST
11 E-MAIL (CDA)	1	79.481	.079	1	85.305	.085

Narrative Justification

E-MAIL- NAVSUP is installing a corporate wide electronic mail facility with Hub located in Mechanicsburg, Pa. We will use a small number of Fleet Material Support Office (FMSO) resources to manage the mail hub, install new users, and provide new Internet capabilities through the installation of a new Internet Domain Name System.

000039

SUPPLY OPERATIONS CAPITAL PURCHASES JUSTIFICATION

BUDGET SUBMISSION
FY 96/97 PRESIDENT'S

COMPONENT/BUSINESS AREA/DATE NAVY/LOGISTICS SUPPORT/JANUARY 1995						*11 ITEM DESCRIPTION* LAN						
ELEMENTS OF COST							**QTY**	**FY 1996 UNIT COST**	**TOTAL COST**	**QTY**	**FY 1997 UNIT COST**	**TOTAL COST**
11 LAN (CDA)							**4**	**79.481**	**.318**	**4**	**85.305**	**.341**

Narrative Justification

LAN - In accordance with the overall Base Level Computing (BLC) concept as described in the approved Mission Needs Statement (MNS), NAVSUP will be installing Local Area Networks (LANS) in a number of small activities that are users of the Uniform Automatic Data Processing System for Stock Points (UADPS-SP). NAVSUP plans to use Fleet Material Support Office (FMSO) resources for some of the LAN installations. These resources will also be used to establish a help desk to provide technical support and trouble shooting services to activities with installed LANS. The LAN installations at small sites are supported by an approved Abbreviated System Decision Paper (ASDP).

000100

SUPPLY OPERATIONS CAPITAL PURCHASES JUSTIFICATION

BUDGET SUBMISSION
FY 96/97 PRESIDENT'S

COMPONENT/BUSINESS AREA/DATE NAVY/LOGISTICS SUPPORT/JANUARY 1995			*11 ITEM DESCRIPTION* TRANSPORTATION					
ELEMENTS OF COST	**QTY**	**FY 1996 UNIT COST**	**TOTAL COST**	**QTY**	**FY 1997 UNIT COST**	**TOTAL COST**
11 TRANSPORTATION (CDA)	**9**	**79.481**	**.715**	**9**	**85.305**	**.768**

Narrative Justification

Transportation - The funds provide for development of the Navy Material Transportation Office Managment Information Systems's Budget Management System and integration of the Transportation Operations Management System.

000101

FY 1995 DBOF Capital Program Reconciliation

FY 1995 DBOF Capital Purchases
Funding Disposition of Deferrals, Cancellations, Substitutions

The following describes the changes in the Capital Purchase Program from the FY 1995 President's Budget to the FY 1995 column of the FY 1996/1997 President's Budget. The categories are as follows:

a.) Category of purchase/project name, as noted in the FY 1995 President's Budget
b.) Disposition of project: cancellation, deferral and/or substitution
c.) Disposition of related funding

000102

FY 1995 DBOF CAPITAL PURCHASES
FUNDING DISPOSITION OF DEFERRALS, CANCELLATIONS, SUBSTITUTIONS

Department of the Navy
($ in 000)

1. Supply Management - Naval Supply Systems Command
   a. ADP Equipment/Joint Engineering Data Mgmt Info & Control System — $32
   b. Deferral
   c. N/A. Obligational authority and TOA removed by Congressional action

2. Logistics Support - Naval Supply Systems Command
   a. Non-ADP Equipment/Hazardous Inventory Control System — $1,910
   b. Deferral
   c. N/A. Obligational authority and TOA removed by Congressional action

3. Logistics Support - Naval Supply Systems Command
   a. Software Development/Uniform ADP System for Stock Points Level II — $1,362
   b. Cancellation
   c. N/A. Obligational authority and TOA removed by Congressional action

4. Logistics Support - Naval Supply Systems Command
   a. Software Development/Electronic Data Interchange — $400
   b. Deferral
   c. N/A. Obligational authority and TOA removed by Congressional action

000103

FY 1995 DBOF Capital Program Reconciliation

FY 1995 DBOF Capital Purchases
Deferrals, Cancellations, Substitutions

The following describes the changes in the Capital Purchase Program from the FY 1995 President's Budget to the FY 1995 column of the FY 1996/1997 President's Budget. The categories are as follows:

a.) Category of purchase/project name, as noted in the FY 1995 President's Budget
b.) Disposition of project: cancellation, deferral and/or substitution
c.) Explanation for cancellation or deferral and substitution

000104

FY 1995 DBOF CAPITAL PURCHASES
DEFERRALS, CANCELLATIONS, SUBSTITUTIONS

Department of the Navy
($ in 000)

1. Supply Management - Naval Supply Systems Command	
a. ADP Equipment/Joint Engineering Data Mgmt Info & Control System	
b. Deferral	$32
c. Congressional reduction to DBOF capital program	
2. Logistics Support - Naval Supply Systems Command	
a. Non-ADP Equipment/Hazardous Inventory Control System	
b. Deferral	$1,910
c. Congressional reduction to DBOF captial program	
3. Logistics Support - Naval Supply Systems Command	
a. Software Development/Uniform ADP System for Stock Points Level II	
b. Cancellation	$1,362
c. Program completed earlier than anticipated	
4. Logistics Support - Naval Supply Systems Command	
a. Software Development/Electronic Data Interchange	
b. Deferral	$400
c. Congressional reduction to DBOF capital program	

DEFENSE BUSINESS OPERATIONS FUND - NAVY
FY 1996 / FY 1997
BUDGET ESTIMATE

DISTRIBUTION DEPOTS

The Navy Distribution Depots business area of the Defense Business Operations Fund provides for the management and operation of the distribution function of the Fleet Industrial Supply Centers at Pearl Harbor, HI.; Yokosuka, Japan; and Guam. Their mission is to provide material distribution services (basic receipt, storage, issue and delivery of material) to afloat and ashore customers in a specific geographic region. Costs of this business area include, but are not limited to, civilian labor, military personnel at these installations, a portion of the Headquarters costs related to distribution, and depreciation of capital assets. The majority of revenue received by the Distribution Depots is provided by, and reflected in the cost of the Supply Management business area.

Budget Highlights

Consolidation: The Supply Management surcharge has borne the cost of the Navy Distribution Depot business area and is the sole customer of the services provided by the Distribution Depots. Consequently, starting in FY 1996, the Distribution depot business area will be incorporated into the Supply Management business area.

Workload:

	FY 1994	FY 1995	FY 1996	FY 1997
Receipts and Issues (In millions)	1.924	1.887	1.867	1.729

Performance Indicators:

	FY 1994	FY 1995
Unit Cost	$32.12	$33.36

Quantitative Summary:

Revenue ($M)	$87.6	$52.4
Cost ($M)	$87.6	$52.1
Net Operating Result	0	$ .3
Accumulated Operating Result	0	$ .3
Civilian End Strength (yrs)	1286	1338
Military End Strength (yrs)	220	264
Civilian Workyears	1093	1205
Military Workyears	220	264

Capital Budget:

The FY 1996 and FY 1997 capital budget requirements are reflected in the capital budget of the Supply Management business area.

DISTRIBUTION DEPOTS - NAVY
REVENUE & EXPENSES
(Dollars in Millions)

	FY 1994	FY 1995	FY 1996	FY 1997
Revenue:				
Gross Sales:				
Operations				
Depreciation except Maj Const	0.6	9.4		
Major Construction Depreciation	1.0	0.0		
Total Gross Sales	1.6	9.4		
Other Income	11.5	5.4		
Total Income	13.1	14.8		
Expenses:				
Cost of Material Sold from Inventory				
Negotiated Purchases from Customers				
Transportation	0.0	0.0		
Salaries and Wages:				
Military Personnel	10.1	8.7		
Civilian Personnel	20.7	18.5		
Materials, Supplies and				
Parts used in Operations	12.5	3.4		
Facility Repair Charge	0.6	0.3		
Depreciation - Capital	1.6	9.4		
Contracted Engineering Services				
Lease Costs	3.2	0.6		
Purchased Utilities	3.2	0.6		
Purchased Communications	2.4	0.2		
Equipment Maintenance	0.0	0.0		
Fuel				
Other Expenses	33.4	10.3		
Total Expenses	87.6	52.0		
Operating Result	-74.5	-37.3		
Less Capital Surchg Reservation				
Plus Appropriations Affecting NOR/AOR				
Other Changes Affecting NOR/AOR (Supply Mgt)	74.5	37.6		
Inventory Gains and Losses				
Net Operating Result	0.0	0.3		
Accumulated Operating Result	0.0	0.3		

DEPARTMENT OF THE NAVY
SUMMARY OF PRICE, PROGRAM AND OTHER CHANGES
(In Millions of Dollars)

DISTRIBUTION DEPOTS

		Cost of Operations FY 1994	Price Growth Percent	Price Growth Amount	Program & Other Changes	Cost of Operations FY 1995	Price Growth Percent	Price Growth Amount	Program & Other Changes	Cost of Operations FY 1996	Price Growth Percent	Price Growth Amount	Program & Other Changes	Cost of Operations FY 1997
	MILITARY PERSONNEL COMPENSATION													
010	Officer Composite	2 241	0 028	0 063	-0 423	1.881	0.030	0 056	-1.937	0.000	0 030	0.000	0.000	0.000
050	Enlisted Composite	7 824	0 028	0 219	-1 246	6 797	0.030	0.204	-7.001	0.000	0.030	0 000	0.000	0.000
	Total Military Personnel Compensation	10 065		0 282	-1.669	8 678		0.260	-8.938	0.000		0.000	0.000	0.000
	CIVILIAN PERSONNEL COMPENSATION													
101	Executive, General & Special Schedule	13 656		0 297	-2 484	11 469		0 230	-11.699	0.000		0 000	0 000	0 000
103	Wage Board	7 001		0 241	-0 194	7 048		0.148	-7.196	0 000		0.000	0.000	0 000
104	Foreign National Direct Hire (FNDH)	0 000		0 000		0 000				0 000				0 000
105	Separation Liability (FNDH)	0 000		0 000		0.000				0 000				0 000
106	Benefits to Former Employees					0 000				0 000				0 000
107	Voluntary Separation & Incentive Payments	0				0 000								
	Total Civilian Personnel Compensation	20 657		0 538	-2 678	18 517		0 378	-18 895	0 000		0 000	0 000	0 000
	INVENTORY PROCUREMENT													
201	Other Consumable Purchases - Wholesale					0 000				0 000				0 000
202	Other Consumable Purchases - Retail					0 000				0 000				0 000
203	DLR Procurement (Replen) Purch - Wholesale					0 000				0.000				0 000
204	DLR Procurement (Replen) Purch - Retail					0 000				0.000				0 000
205	DLR Repair Purchases	0 000		0 000	0 000	0.000				0.000				0 000
	Organic (DBOF)	0 000		0 000	0 000					0 000				0 000
	From Army Dep Maint									0.000				0 000
	From Navy Dep Maint									0.000				0 000
	From Air Force Dep Maint									0.000				0 000
	Contract									0.000				0 000
206	Clothing Purchases					0 000				0.000				0.000
207	Medical/Dental Purchases					0 000				0 000				0 000
208	Fuel Purchases					0 000				0 000				0 000
209	Commissary/Subsistence Purchases					0 000				0.000				0 000
211	Returns (for credit) from Customers					0 000				0.000				0.000
	Total Inventory Procurement	0 000	0 000	0 000	0 000	0 000		0.000		0.000		0 000		0.000
	TRAVEL													
301	Per Diem	0 006		0 000		0 006		0 000	-0 006	0 000		0 000		0 000
302	Other Travel Costs	0 017	0 028	0 000		0 017	0 030	0 001	-0 018	0 000	0 030	0 000		0 000
303	MAC Passengers (DBOF)					0 000		0 000		0 000		0 000		0 000
307	Leased Vehicles					0 000		0 000		0 000		0 000		0 000
	Total Travel	0 023		0 000	0 000	0 023		0 001	-0 024	0 000		0 000	0 000	0 000
	MATERIAL, EQUIP & SUPPLIES (INTERNAL OPS)													
401	Fuel Purchases (Other than from Supp Ops)			0 000		0 000		0 000		0 000		0 000		0 000

000109

DEPARTMENT OF THE NAVY
SUMMARY OF PRICE, PROGRAM AND OTHER CHANGES
(In Millions of Dollars)

DISTRIBUTION DEPOTS

		Cost of Operations FY 1994	Price Growth Percent	Price Growth Amount	Program & Other Changes	Cost of Operations FY 1995	Price Growth Percent	Price Growth Amount	Program & Other Changes	Cost of Operations FY 1996	Price Growth Percent	Price Growth Amount	Program & Other Changes	Cost of Operations FY 1997
415	DLA Managed Purchases				0 000	0 000		0 000		0.000		0.000		0 000
416	GSA Managed Supply Operations Purchases	6 236	0 028	0 175	-5 220	1 191	0 030	0 036	-1.227	0 000	0.030	0.000		0 000
417	Locally Purch Supp & Mat (Other than fr Supp Ops)	6 214	0 028	0 174	-4 208	2 180	0.030	0 065	-2.245	0 000	0.030	0.000		0 000
	Total Material, Equipment & Supplies	12 450		0 349	-9 428	3 371		0.101	-3.472	0.000		0.000	0.000	0.000
	OTHER INTRAFUND (DBOF) PURCHASES													
615	Navy Data Automation Centers	0 232	0 094	0 022	-0 179	0 075	0 001	0 000	-0.075	0.000	0 018	0.000	0.000	0 000
633	Naval Publications and Printing Service	0 000	0 160	0 000		0 000	-0 088	0 000		0.000	0 093	0.000		0 000
634	Naval Public Works Centers - Utilities	3 208	0 098	0 308	-2 879	0 635	-0 113	-0 072	-0.563	0.000	0 036	0.000	0.000	0 000
635	Naval Public Works Centers - Public Works	5 120	0 034	0 174	-3 983	1 331	0 010	0 013	-1.344	0 000	0.028	0.000	0.000	0 000
637	Naval Shipyards	0 000	0 187	0 000		0 000	0 000	0 000		0 000	0 043	0 000	0.000	0 000
647	DISA Information Services	4 901	-0 013	-0 064	-3 524	1 313	-0 038	-0 050	-1.263	0 000	0 030	0 000	0	0 000
673	Defense Finance and Accounting Service	2 032	0 208	0 423	-2 378	0 077	-0.198	-0 015	-0 062	0 000	0.030	0.000		0 000
	Total Industrial Fund Purchases	15 491		0 863	-12 923	3 431		-0 124	-3.307	0.000		0.000	0.000	0 000
	TRANSPORTATION													
701	MAC Cargo (DBOF)					0 000		0 000		0.000		0.000		0 000
702	MAC SAAM (DBOF)					0 000		0 000		0.000		0.000		0 000
703	JCS Exercises (DBOF)					0 000		0.000		0.000		0.000		0 000
711	MSC Cargo (DBOF)					0.000				0.000				0 000
721	MTMC Port Handling (DBOF)					0 000		0 000		0.000		0 000		0 000
731	Commercial Air-nonpremimum					0 000		0 000		0.000		0 000		0 000
751	Commercial Land-nonpremimum					0 000		0 000		0.000		0.000		0 000
755	Premimum/Overnight/Express					0 000		0 000		0.000		0.000		0 000
761	Other Transportation					0 000		0 000		0.000		0 000		0 000
	Total Transportation	0 000		0 000	0 000	0 000		0 000	0.000	0.000		0.000	0 000	0.000
	DEPRECIATION/AMORTIZATION													
801	Real Property Maintenance (M&R)	0 800		0 000	8 750	9 350		0 000	-9.350	0 000		0 000	0 000	0 000
802	Equipment, except ADPE and Telecom			0 000		0 000		0 000		0 000		0 000		0 000
803	ADPE and Telecom Resources			0 000		0 000		0 000		0 000		0 000		0 000
804	Software Development			0 000		0 000		0 000		0 000		0 000		0 000
805	Minor Construction			0 000		0 000		0 000		0 000		0 000		0 000
806	Management Improvement Initiatives			0 000		0 000		0 000		0 000		0 000		0 000
807	Major Construction (MILCON)	1 000		0 000	-1 000	0 000		0 000		0 000		0 000		0 000
	Total Depreciation/Amortization	1 600		0 000	7 750	9 350	0 000	0 000	-9 350	0 000	0 000	0 000	0 000	0 000
	OTHER PURCHASED SERVICES													
901	Foreign National Indirect Hire (FNIH)	7 429		0 089	-5 209	2 309		0 047	-2 356	0 000		0 000		0 000
902	Separation Liability	0 230		0 003	-0 163	0 070		0 001	-0 071	0 000		0 000		0 000
912	SLUC (GSA Leases)			0 000	0 000	0 000		0 000		0 000		0 000		0 000

000110

DEPARTMENT OF THE NAVY
SUMMARY OF PRICE, PROGRAM AND OTHER CHANGES
(In Millions of Dollars)

DISTRIBUTION DEPOTS

		Cost of Operations FY 1994	Price Growth Percent	Price Growth Amount	Program & Other Changes	Cost of Operations FY 1995	Price Growth Percent	Price Growth Amount	Program & Other Changes	Cost of Operations FY 1996	Price Growth Percent	Price Growth Amount	Program & Other Changes	Cost of Operations FY 1997
913	Purchased Utilities (Non DBOF)	0.028	0.028	0.001	-0.029	0.000	0.030	0.000		0.000	0.030	0.000		0.000
914	Purchased Communications (Non DBOF)	2.449	0.028	0.069	-2.273	0.245	0.030	0.007	-0.252	0.000	0.030	0.000		0.000
915	Rents & Leases	3.233	0.028	0.091	-2.676	0.648	0.030	0.019	-0.667	0.000	0.030	0.000		0.000
917	Postal Services	0.318	0.028	0.009	-0.178	0.149	0.030	0.004	-0.153	0.000			0	0.000
921	Printing & Reproduction	0.000	0.028	0.000	0.000	0.000	0.030	0.000		0.000	0.030	0.000		0.000
922	Equipment Maintenance by Contract	0.000	0.028	0.000	0.000	0.000	0.030	0.000		0.000	0.030	0.000		0.000
923	Facility Maintenance by Contract	0.568	0.028	0.016	-0.306	0.278	0.030	0.008	-0.286	0.000	0.030	0.000		0.000
931	Contract Consultants	0.008	0.028	0.000	0.000	0.008	0.030	0.000	-0.008	0.000	0.030	0.000		0.000
932	Contract Studies & Analysis	0.000	0.028	0.000	0.000	0.000	0.030	0.000		0.000	0.030	0.000		0.000
933	Prof & Management Services by Contract	0.000	0.028	0.000	0.000	0.000	0.030	0.000		0.000	0.030	0.000		0.000
934	Contract Eng & Technical Services (CETS)	0.000	0.028	0.000	0.000	0.000	0.030	0.000		0.000	0.030	0.000		0.000
941	Technical Drawings (Supply Ops only)	0.000	0.028	0.000	0.000	0.000	0.030	0.000		0.000	0.030	0.000		0.000
942	Forgings & Castings (Supply Ops only)	0.000	0.028	0.000	0.000	0.000	0.030	0.000		0.000	0.030	0.000		0.000
951	ADPE Maintenance													
952	Software Development													
953	Reimbursements to Distribution Depots													
954	Reimbursements to DLSC/DAASO/DRMS													
989	Other Engineering Services & Support	0.000	0.028	0.000	0.000	0.000	0.030	0.000		0.000	0.030	0.000		0.000
987	Other Intragovernmental Purchases	0.000	0.028	0.000	0.104	0.104	0.030	0.003	-0.107	0.000	0.030	0.000	0.000	0.000
989	Other Contracts	0.000	0.028	0.000	0.000	0.000	0.030	0.000		0.000	0.030	0.000		0.000
998	Other Costs	13.076	0.028	0.366	-8.555	4.887	0.030	0.147	-5.034	0.000	0.030	0.000	0	0.000
	Total Other Purchases	27.339		0.644	-19.265	8.698		0.236	-8.934	0.000		0.000	0.000	0.000
	TOTAL COST OF OPERATIONS	87.625		2.675	-38.232	52.068		0.852	-52.920	0.000		0.000	0.000	0.000

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Distribution Depots Capital Budget Summary
Department of the Navy
Date: January 1995
($ in Millions)

Line Number	Item Description	FY 1994		FY 1995		FY 1996		FY 1997	
		Quant	Total Cost	Quant	Total Cost	Quant	Total Cost	Quant	Total Cost
0001	1. Minor Construction		0.759		0.526		0.000		0.000
	Subtotal Equipment (>500,000)		0.759		0.526		0.000		0.000
	GRAND TOTAL CAPITAL PURCHASE PROGRAM		0.759		0.526		0.000		0.000

DEPARTMENT OF THE NAVY
DEFENSE BUSINESS OPERATIONS FUND
NAVAL SHIPYARDS

ACTIVITY GROUP FUNCTION:

Naval Shipyards provide logistic support for assigned ships and service craft; perform authorized work in connection with construction, overhaul, repair, alteration, drydocking and outfitting of ships and crafts as assigned; perform design, manufacturing, refit and restoration, research, development and test work, and provide services and material to other activities and units as directed by competent authority.

ACTIVITY GROUP COMPOSITION:

There are eight naval shipyards operating under the Defense Business Operations Fund (DBOF). These activities and their locations are:

Charleston Naval Shipyard	Charleston, SC
Long Beach Naval Shipyard	Long Beach, CA
Mare Island Naval Shipyard	Vallejo, CA
Norfolk Naval Shipyard	Portsmouth, VA
Pearl Harbor Naval Shipyard	Pearl Harbor, HI
Philadelphia Naval Shipyard	Philadelphia, PA
Portsmouth Naval Shipyard	Kitterey, ME
Puget Sound Naval Shipyard	Bremerton, WA

OVERVIEW FOR NAVAL SHIPYARDS:

Effective in FY 1996, the three shipyards scheduled for closure, Charleston, Mare Island and Philadelphia, will cease operating under DBOF. These closing yards face the task of completing their remaining mission work as efficiently as possible, while at the same time phasing down toward closure. The mission cessation and operational closure dates for the closing yards are:

	Mission Cessation	Operational Closure
Charleston	Aug 1995	Apr 1996
Mare Island	Apr 1995	Apr 1996
Philadelphia	Sep 1995	Sep 1996

The continuing yards face very different challenges, as we reduce our work force in response to the decline in the Navy maintenance program while at the same time continuing our strong commitment to productivity improvement and cost efficiency. This budget submission reflects that commitment as we continue our implementation of various productivity and cost initiatives, including Advanced Industrial Management (AIM), throughout the shipyard community.

WORKLOAD:
Direct labor civilian mandays are:

	(mandays in thousands)			
	FY 1994	FY 1995	FY 1996	FY 1997
Closing Yards	2,229	1,491	-	-
Continuing Yards	4,184	4,059	3,895	3,481
Total mandays	6,413	5,550	3,895	3,481

Workload at closing shipyards includes 281 thousand mandays in FY 1994 and 673 thousand mandays in FY 1995 funded from the Base Realignment and Closure (BRAC) account. Workload in FY 1995 at the continuing shipyards is projected to be 113 thousand mandays below the President's Budget. These workload decreases are primarily due to the decreased work package on the USS Memphis at Portsmouth NSY and deleted availabilities and other workload changes at Puget, Pearl Harbor, Portsmouth and Long Beach shipyards. Partially offsetting these decreases are increases in FY 1995 at Norfolk NSY for authorized additional work and schedule changes on USS Saipan and USS LaSalle. The FY 1996 estimate reflects realignment of supervisory hours from direct to overhead in accordance with DoD guidance. Without his realignment, the number of direct labor mandays at the continuing yards would increase by about 4.8 percent in FY 1996 as compared to FY 1995. In FY 1997, workload declines as the Navy continues to reduce funded maintenance requirements.

STAFFING:

Staffing levels decline, as the closing yards phase downward toward closure and the open yards continue to reduce staffing levels in order to control operating costs. For the open yards end strength declines 20.9% (or 7,197) from the beginning of FY 1994 to the end of FY 1997, as they reduce cost in line with workload reductions and the need to maintain competitive manday rates. Projected military and civilian strength estimates are as follows (FY 1994 are actual):

	FY 1994	FY 1995	FY 1996	FY 1997
CLOSING YARDS				
End year Strength				
Civilian	12,133	5,251	-	-
Military	316	94	-	-
Total	12,595	5,354	-	-
Workyears				
Civilian	14,094	9,728	-	-
Military	316	125	-	-
Total	14,410	9,853	-	-
CONTINUING YARDS				
End year Strength				
Civilian	29,719	29,619	29,509	26,994
Military	375	277	253	251
Total	29,991	29,895	29,762	27,245

Workyears				
Civilian	31,182	29,001	29,509	27,419
Military	375	284	277	251
Total	31,554	29,285	29,786	27,670

CUSTOMER RATES:

Customer rates, calculated and imposed on a program induction year basis, increase by an average of 0.0% from FY 1995 to FY 1996 and by an average of 4.9 percent from FY 1996 to FY 1997.

UNIT COST:

Unit cost, which is the composite average cost per direct labor hour of producing goods and services in the current fiscal year, is projected to be $78.38 per hour in FY 1996 and $83.51 per hour in FY 1997.

HEADQUARTERS COSTS:

Headquarters cost declines in the current submission, as the number and size of the shipyards decline:

	($millions)			
	FY 1994	FY 1995	FY 1996	FY 1997
Headquarters	$8.6	$8.9	$8.2	$7.5

PRODUCTIVITY:

Continuous efforts are underway to improve and streamline work processes in order to accomplish the planned levels of performance and productivity. Advanced Industrial Management (AIM) is a major process improvement affecting most of the shipyards' functional areas. It is an engineering process for industrial operations at naval shipyards. It will improve performance by:

- Providing disciplined work planning, estimating and scheduling functions.
- Delivering simplified and complete work documents to the mechanic.
- Applying group and zone technology.
- Promoting data management and integration.
- Reshaping and downsizing the organizational structure to take advantage of the improved process.

To achieve these performance improvements, the AIM Program focuses on three major components:

- Process - The process standardizes planning and work procedures and the products produced by these procedures so they can be accessed and reused by all shipyards. the process also allows flexible packaging of work (by zone, trade skill, resource, system, etc.) to promote efficient resource management.

- Organization - The shipyard organizational and management structure has been changed to reflect the project orientation of the improved process.

- Information Technology - New automated tools are developed to support the portions of the process that cannot be satisfied with the existing systems. All automated systems (new and old) are integrated to provide a single point of entry for each user, a common man-machine interface, and standard software that can be easily maintained.

Examples of other productivity improvements include:

- Long Beach NSY has initiated a pilot program, establishing a compressed work week of four ten hour days. In FY 1994 this schedule was tested on two availabilities with very promising results, including lower overtime usage, lower sick leave, quality of life improvement in the tree-day weekends for sailors on ships in overhaul which are homeported in San Diego, and reduced air pollution in the elimination of one commuting day.

- Various shipyards including Long Beach, Norfolk, Pearl Harbor and Puget Sound have begun plant equipment excessing programs and infrastructure consolidation programs in order to reduce plant capacity in line with reductions in workload. By consolidating into fewer facilities and excessing unnecessary plant equipment, maintenance and depreciation costs can be reduced.

- Puget Sound NSY has developed a process improvement which employs shot blasting to remove hazardous materials from submarine hulls, thereby reducing recycling labor by approximately $331 thousand per hull.

FINANCIAL PROFILE:

($millions)

	FY 1994	FY 1995	FY 1996	FY 1997
Revenue	3,585.3	3,422.8	3,012.6	2,353.5
Cost of Goods Sold	3,749.2	3,287.6	2,442.0	2,325.5
Revenue Less Expense	-163.8	135.2	570.7	28.3
Capital Surcharge Reservation	5.2	60.8	29.6	28.3
Other Adjustments	-2.9	0	148.0	0
Net Operating Result	-171.9	74.4	689.0	0
Accumulated Opaerating Result:				
Begin Year	-591.5	-763.4	-689.0	0
End Year	-763.4	-689.0	0	0
New Customer Orders	3,145.9	3,083.0	2,702.9	2,086.0

Unavoidable operational losses at closing shipyards and the impact of the overall DoD force structure decline have generated a large negative Accumulated Operating Result (AOR). A policy change in 1994 precludes the portion of these losses associated with under-applied overhead at the closing yards from being applied to BRAC funded effort. These losses are funded by a passthrough of $433.8 million in FY 1996 from the Operations and Maintenance, Navy appropriation, and is reflected in the FY 1996 revenue estimate. Direct funding of these losses is more appropriate than recovery from customers through DBOF rates. The FY 1996 estimate also reflects accommodation of $148.0 million of prior year losses by transfer of cash anticipated to be generated in the supply business area.

CAPITAL BUDGET:

($ millions)

	FY 1994	FY 1995	FY 1996	FY 1997
FY 1995 President's Budget	63.3	52.0		
Current Request	63.3	33.1	17.2	51.0

The FY 1995 program reflects Congressional reductions and the transfer of $6.3 million from the JLSC (Joint Logistics Systems Center) DBOF capital budget for purchase of ADP equipment to support the Depot Maintenance Standard System (DMSS) being developed by JLSC. The FY 1995 program continues to include funding to procure Radiological Controls Computer System Hardware ($1.5 million), the Honeywell Conversion ($11.5 million). Operating cost savings anticipated in the budget are partially dependent on these investments. The capital investment estimates for FY 1996 and FY 1997 provide for equipment replacement and minor construction requirements at the five naval shipyards projected to continue operating beyond the budget years.

SUMMARY OF WORKLOAD INDICATORS:

	FY 1994	FY 1995	FY 1996	FY 1997
CV SLEP/MTS/CONV	-	-	-	-
ROH/COH/RF	5	5	7	7
DMP	-	1	-	-
OTHER STARTS: (SRA, ERP,IA, PMA, PSA, etc.)	37	49	41	48
TOTAL	42	55	48	55

PERFORMANCE INDICATORS:

	FY 1995	FY 1996	FY 1997
Net Operating Result - $millions	74.4	107.2	0
Schedule - Complete (x)% on time	TBD	TBD	TBD
Quality - Less than (x)% defects	TBD	TBD	TBD

NAVAL SHIPYARDS
REVENUE AND EXPENSES
(Dollars in Millions)

	FY 1994	FY 1995	FY 1996	FY 1997
Revenue:				
Gross Sales	3,585.3	3,422.8	2,578.8	2,353.9
Operations	3,482.6	3,304.6	2,490.1	2,265.2
Capital Surcharge	5.2	60.8	29.6	28.3
Depreciation except Maj Const	44.6	57.4	59.1	60.4
Major Construction Depreciation	53.0	0.0	0.0	0.0
Other Income			433.8	
Refunds/Discounts (-)				
Total Income	**3,585.3**	**3,422.8**	**3,012.6**	**2,353.9**
Expenses:				
Cost of Materiel Sold from Inventory				
Negotiated Purchases from Customers				
Transportation	80.5	69.1	25.5	25.5
Salaries and Wages:				
Military Personnel	23.0	7.4	14.6	14.8
Civilian Personnel	2,386.8	2,057.9	1,577.7	1,495.1
Materials, Supplies and				
Parts used in Operations	320.8	341.5	255.7	254.2
Facility Repair Charge	97.7	81.6	53.6	51.6
Depreciation - Capital	97.6	57.4	59.1	60.4
Contracted Engineering Services	18.3	10.1	6.5	6.5
Lease Costs	16.6	11.3	9.1	8.8
Purchased Utilities	120.3	89.3	44.4	46.9
Purchased Communications	16.1	17.1	13.5	13.6
Equipment Maintenance	23.2	23.0	14.4	14.8
Fuel	12.1	6.8	4.0	4.1
Other Expenses	536.1	515.0	363.9	329.2
Total Expenses	**3,749.2**	**3,287.6**	**2,442.0**	**2,325.5**
Operating Result	(163.8)	135.2	570.7	28.3
Less Capital Surchg Reservation	5.2	60.8	29.6	28.3
Plus Appropriations Affecting NOR/AOR	0.0	0.0	0.0	0.0
Other Changes Affecting NOR/AOR	(2.9)		148.0	
Net Operating Result	(171.9)	74.4	689.0	0.0
Prior Year AOR	(591.5)	(763.4)	(689.0)	(0.0)
Accumulated Operating Result	(763.4)	(689.0)	(0.0)	0.0

BUSINESS AREA ANALYSIS
DEPARTMENT OF THE NAVY
NAVAL SHIPYARDS
SOURCE OF REVENUE
(Dollars in Millions)

	FY 1994	FY 1995	FY 1996	FY 1997
1. New Orders	3,258.6	2,969.4	2,891.5	2,086.8
a. Orders from DoD Components	3,044.7	2,774.6	2,732.8	1,933.2
Department of the Navy	2,913.5	2,410.2	2,725.4	1,925.7
Operations and Maintenance, Navy	1,975.5	1,744.9	2,202.8	1,462.3
Operations and Maintenance, Marine Corps	0.4	1.2	0.1	0.1
O&M, Navy Reserve	14.0	5.0	3.7	3.4
O&M, Marine Corps Reserve	0.1	0.0	0.0	0.0
Aircraft Procurement, Navy	1.7	0.0	0.0	0.0
Weapons Procurement, Navy	2.4	1.5	1.4	1.4
Shipbuilding & Conversion, Navy	(6.2)	77.7	32.5	17.5
Other Procurement, Navy	766.7	548.4	457.3	416.5
Procurement, Marine Corps				
Family Housing, Navy and Marine Corps	7.9	11.3	8.6	9.1
Research, Development, Test & Eval, Navy	98.6	10.0	7.8	8.6
Military Construction, Navy	0.9	0.9	0.6	0.7
Other Navy Appropriations	52.2	9.2	10.5	6.1
Other Marine Corps Appropriations	(0.5)			
Department of the Army	0.8	0.3	0.2	0.2
Army Operation & Maintenance Accounts	0.7	0.0	0.0	0.0
Army Res, Dev, Test & Eval Accounts	0.1	0.0	0.0	0.0
Army Procurement Accounts				
Army Other	0.1	0.3	0.2	0.2
Department of the Air Force	1.9	0.1	0.0	0.0
Air Force Operation & Maintenance Accounts	1.8	0.0	0.0	0.0
Air Force Res, Dev, Test & Eval Accounts	0.0			
Air Force Procurement Accounts				
Air Force Other	0.1	0.1	0.0	0.0
DoD Appropriated Accounts	128.5	364.1	7.1	7.2
Base Closure and Realignment	34.7	355.3	0.0	0.0
Operation & Maintenance Accounts	89.6	3.1	2.5	2.9
Res, Dev, Test & Eval Accounts	0.0	0.3	0.2	0.2
Procurement Accounts				
DoD Other	4.2	5.4	4.3	4.1
b. Orders from DBOF Business Areas	170.0	153.8	110.8	102.9
c. Total DoD	3,214.7	2,928.4	2,843.5	2,036.1
d. Other Orders	43.9	41.0	48.0	50.7
Other Federal Agencies	3.9	1.8	1.4	1.5
Trust Funds (including FMS)	38.3	35.3	43.4	46.3
Non Federal Agencies	1.7	3.8	3.2	2.9
2. Carry-In Orders	1,547.2	1,220.6	577.8	456.7
3. Total Gross Orders (available funding)	4,805.9	4,190.1	3,469.3	2,543.5
4. Carry-Out Orders	1,220.6	767.3	456.7	189.6
Change in Backlog (carry-out less carry-in)	(326.6)	(453.4)	(121.1)	(267.0)
5. Total Gross Sales	3,585.3	3,422.8	3,012.6	2,353.9

Department of the Navy
NAVAL SHIPYARDS
Summary of Price, Program and Other Changes (Operating Budget)
February 1995
($ in Thousands)

	Cost of Operations FY 1994	Price Growth	Program & Other Changes	Cost of Operations FY 1995	Price Growth	Program & Other Changes	Cost of Operations FY 1996	Price Growth	Program & Other Changes	Cost of Operations FY 1997
Military Personnel Compensation	23,028	110	(15,709)	7,429	150	7,052	14,631	338	(135)	14,834
Civilian Personnel Compensation	2,386,798	21,761	(350,627)	2,057,932	32,723	(512,986)	1,577,669	47,205	(129,767)	1,495,107
Travel	56,012	593	(31,722)	24,883	267	(10,065)	15,085	159	366	15,610
Material & Supplies - Commercial	146,779	4,110	20,837	171,726	5,152	(19,115)	157,763	4,733	(12,280)	150,216
Material & Supplies - from DBOF	157,672	17,673	1,227	176,572	(14,829)	(59,812)	101,931	6,615	(479)	108,067
Other Intrafund (DBOF) Purchases	136,344	9,808	(42,794)	103,358	(5,504)	(33,655)	64,199	1,227	4,323	69,749
Transportation	24,452	685	19,058	44,195	2,210	(35,972)	10,433	313	(863)	9,883
Capital Investment Depreciation	97,606		(40,182)	57,424		1,626	59,050		1,352	60,402
Other Purchases	720,467	20,173	(96,588)	644,052	19,322	(222,178)	441,196	13,236	(52,748)	401,684
Total Operating Budget *	**3,749,158**	**74,913**	**(536,500)**	**3,287,571**	**39,491**	**(885,105)**	**2,441,957**	**73,826**	**(190,231)**	**2,325,552**

*Includes Reimbursements

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DEPARTMENT OF THE NAVY
NAVAL SHIPYARDS
SUMMARY OF CHANGES IN OPERATIONS
(Dollars in Millions)

	Costs
FY 1994 Current Estimate	**$3,749.2**
FY 1995 Estimate in President's Budget	**$3,278.6**
Fact of life impact of FY 1994 actual experience	37.6
Pricing Adjustments:	
Civilian locality pay	15.3
Productivity Initiatives and Other Efficiencies:	
SECNAV directed Overhead Efficiencies	(19.8)
Program Changes:	
Direct workyear changes	(23.7)
Direct material and contracts	17.2
Indirect support	39.6
Workload related changes at closing shipyards	(18.1)
Other Changes:	
Depreciation expenses - closing yards, other	(43.2)
Change in Investment threshold	5.5
Accounting services provided by DFAS	5.5
All other miscellaneous adjustments	(6.9)
FY 1995 Current Estimate	**$3,287.6**
Three closing shipyards removed from DBOF	(968.0)
Pricing Adjustments:	
Annualization of FY 1995 Pay Raises	11.2
FY 1996 Pay Raise:	
Civilian Personnel	21.6
Military Personnel	0.1
DBOF Price Changes	(20.3)
General Purchase Inflation	27.0
Productivity Initiatives and Other Efficiencies:	
SECNAV directed Overhead Efficiencies	(19.8)
Other productivity initiatives	(4.8)
Program Changes:	
Direct workload	45.3

Direct material and direct contract costs	32.2
Other Changes	
Depreciation expense	1.6
Direct labor - first line supervision	(80.1)
Indirect labor - first line supervision	80.1
Additional reimbursement to DFAS for financial services	1.8
Corrected miltary personnel salary cost reimbursement	7.1
Increased FECA cost	4.1
All other	15.5
FY 1996 Estimate	**$2,442.0**
Pricing Adjustments:	
Annualization of FY 1996 Pay Raises	17.6
FY 1997 Pay Raise:	
Civilian Personnel	29.7
Military Personnel	0.3
DBOF Price Changes	7.8
General Purchase Inflation	18.4
Productivity Initiatives and Other Efficiencies	(2.5)
Program Changes:	
Direct workyears	(50.8)
Direct material and direct contract costs	(18.0)
Overhead workyears	(14.2)
Other overhead costrs	(17.8)
Other Changes	
Depreciation expense	1.4
Personnel separation costs (SIP/VERA/PCS)	(12.4)
Shipyard internal accounting support	(1.1)
Reimburse DFAS for financial services	(1.0)
All other	(73.7)
FY 1997 Estimate	**$2,325.5**

DEFENSE BUSINESS OPERATIONS FUND
DEPARTMENT OF THE NAVY
NAVAL SHIPYARDS

MATERIAL INVENTORY DATA
(Dollars in Millions))
FISCAL YEAR 1994

	Total	Mobilization	-------- Peacetime -------- Operating	Other
Materiel Inventory BOP	295.1	0.0	295.1	0.0
BOP Reclassification Changes	0.0	0.0	0.0	0.0
Price Changes	0.0	0.0	0.0	0.0
Receipts from Commercial Sources	334.3	0.0	334.3	0.0
Negotiated Purchase from Customers	0.0	0.0	0.0	0.0
Gross Sales	318.7	0.0	318.7	0.0
Materiel Inventory Adjustments				
CAPITALIZATIONS + OR (-)	0.0	0.0	0.0	0.0
RETURNS TO SUPPLIERS (-)	0.0	0.0	0.0	0.0
TRANSFERS TO PROP. DISP.(-)	0.0	0.0	0.0	0.0
ISSUES/RECEIPTS WITHOUT REIMBURSEMENT + or (-)	0.0	0.0	0.0	0.0
OTHER (list)	0.0	0.0	0.0	0.0
TOTAL ADJUSTMENTS	0.0	0.0	0.0	0.0
Materiel Inventory EOP	310.7	0.0	310.7	0.0
ECONOMIC RETENTION (memo)	0.0			
POLICY RETENTION (memo)	0.0			
POTENTIAL EXCESS (memo)	0.0			
Materiel Inventory on Order EOP (memo)	77.7	0.0	77.7	0.0

DEFENSE BUSINESS OPERATIONS FUND
DEPARTMENT OF THE NAVY
NAVAL SHIPYARDS

MATERIAL INVENTORY DATA
(Dollars in Millions))
FISCAL YEAR 1995

			-------- Peacetime --------	
	Total	Mobilization	Operating	Other
Materiel Inventory BOP	310.7	0.0	310.7	0.0
BOP Reclassification Changes	0.0	0.0	0.0	0.0
Price Changes	0.0	0.0	0.0	0.0
Receipts from Commercial Sources	100.8	0.0	100.8	0.0
Negotiated Purchase from Customers	0.0	0.0	0.0	0.0
Gross Sales	255.4	0.0	255.4	0.0
Materiel Inventory Adjustments				
CAPITALIZATIONS + OR (-)	0.0	0.0	0.0	0.0
RETURNS TO SUPPLIERS (-)	0.0	0.0	0.0	0.0
TRANSFERS TO PROP. DISP.(-)	0.0	0.0	0.0	0.0
ISSUES/RECEIPTS WITHOUT REIMBURSEMENT + or (-)	0.0	0.0	0.0	0.0
OTHER (list)	0.0	0.0	0.0	0.0
TOTAL ADJUSTMENTS	0.0	0.0	0.0	0.0
Materiel Inventory EOP	156.1	0.0	156.1	0.0
ECONOMIC RETENTION (memo)	0.0			
POLICY RETENTION (memo)	0.0			
POTENTIAL EXCESS (memo)	0.0			
Materiel Inventory on Order EOP (memo)	39.0	0.0	39.0	0.0

DEFENSE BUSINESS OPERATIONS FUND
DEPARTMENT OF THE NAVY
NAVAL SHIPYARDS

MATERIAL INVENTORY DATA
(Dollars in Millions))
FISCAL YEAR 1996

	Total	Mobilization	-------- Peacetime -------- Operating	Other
Materiel Inventory BOP	156.1	0.0	156.1	0.0
BOP Reclassification Changes	0.0	0.0	0.0	0.0
Price Changes	0.0	0.0	0.0	0.0
Receipts from Commercial Sources	241.8	0.0	241.8	0.0
Negotiated Purchase from Customers	0.0	0.0	0.0	0.0
Gross Sales	259.7	0.0	259.7	0.0
Materiel Inventory Adjustments				
CAPITALIZATIONS + OR (-)	0.0	0.0	0.0	0.0
RETURNS TO SUPPLIERS (-)	0.0	0.0	0.0	0.0
TRANSFERS TO PROP. DISP.(-)	0.0	0.0	0.0	0.0
ISSUES/RECEIPTS WITHOUT REIMBURSEMENT + or (-)	0.0	0.0	0.0	0.0
OTHER (list)	0.0	0.0	0.0	0.0
TOTAL ADJUSTMENTS	0.0	0.0	0.0	0.0
Materiel Inventory EOP	138.2	0.0	138.2	0.0
ECONOMIC RETENTION (memo)	0.0			
POLICY RETENTION (memo)	0.0			
POTENTIAL EXCESS (memo)	0.0			
Materiel Inventory on Order EOP (memo)	34.6	0.0	34.6	0.0

DEFENSE BUSINESS OPERATIONS FUND
DEPARTMENT OF THE NAVY
NAVAL SHIPYARDS

MATERIAL INVENTORY DATA
(Dollars in Millions))
FISCAL YEAR 1997

			-------- Peacetime --------	
	Total	Mobilization	Operating	Other
Materiel Inventory BOP	138.2	0.0	138.2	0.0
BOP Reclassification Changes	0.0	0.0	0.0	0.0
Price Changes	0.0	0.0	0.0	0.0
Receipts from Commercial Sources	237.2	0.0	237.2	0.0
Negotiated Purchase from Customers	0.0	0.0	0.0	0.0
Gross Sales	251.7	0.0	251.7	0.0
Materiel Inventory Adjustments				
CAPITALIZATIONS + OR (-)	0.0	0.0	0.0	0.0
RETURNS TO SUPPLIERS (-)	0.0	0.0	0.0	0.0
TRANSFERS TO PROP. DISP.(-)	0.0	0.0	0.0	0.0
ISSUES/RECEIPTS WITHOUT REIMBURSEMENT + or (-)	0.0	0.0	0.0	0.0
OTHER (list)	0.0	0.0	0.0	0.0
TOTAL ADJUSTMENTS	0.0	0.0	0.0	0.0
Materiel Inventory EOP	123.8	0.0	123.8	0.0
ECONOMIC RETENTION (memo)	0.0			
POLICY RETENTION (memo)	0.0			
POTENTIAL EXCESS (memo)	0.0			
Materiel Inventory on Order EOP (memo)	30.9	0.0	30.9	0.0

BUSINESS AREA CAPITAL BUDGET SUMMARY

Department of the Navy

Depot Maintenance/Naval Shipyards

FY 96/97 President's Budget

($ in Millions)

LINE #	Item Description	FY 1994 Quant	FY 1994 Total Cost	FY 1995 Quant	FY 1995 Total Cost	FY 1996 Quant	FY 1996 Total Cost	FY 1997 Quant	FY 1997 Total Cost
	1. Equipment								
	Non ADP Equipment (>$500K)								
	<-----REPLACEMENT----->								
0001	60 TON PORTAL CRANE	1	6.0	1	5.0	1	6.3	2	12.5
0002	HAZ MIN/PAINTING EQUIPMENT	1	2.5					1	1.0
0003	REFINING LADLE SYSTEM	1	0.9						
0004	CRANES, BRIDGE							3	1.4
0005	CRANES, MOBILE, TRUCK							5	4.3
0006	CRANE CONTRACT N62472-87-C-1450 SETTLEMENT			1	3.6				
0007	HORIZ BORING MILL, REMANUFACTURE							2	3.6
0008	PIPE BENDER, 6", SEMI-AUTOMATIC							1	0.7
0009	COLLATTERAL EQUIP. FOR MCON PROJ. P-622			VAR	3.2				
	<-----NEW MISSION----->								
0010	7500 KVA PORTABLE TRANSFORMER	1	0.9						
0011	RADIOLOGICAL WORK ENCLOSURES	3	3.5						
0012	ONBOARD DISCHARGE TANKS BLAST EQUIPMENT							1	0.8
	Subtotal Equipment (>$500K)		13.7		11.8		6.3		24.3
0013	Subtotal Non ADP Equipment (FY94>$25K<500K;FY95/97:>$50K<$500K)	VAR	30.4	VAR	1.2		1.8	VAR	11.3
	Subtotal Non ADP Equipment (FY94>$25K; FY95/97>$50K)	VAR	44.1	VAR	13.0	VAR	8.0	VAR	35.6

BUSINESS AREA CAPITAL BUDGET SUMMARY
Department of the Navy
Depot Maintenance/Naval Shipyards
FY 96/97 President's Budget

($ in Millions)

LINE #	Item Description	FY 1994 Quant	FY 1994 Total Cost	FY 1995 Quant	FY 1995 Total Cost	FY 1996 Quant	FY 1996 Total Cost	FY 1997 Quant	FY 1997 Total Cost
	2. ADP Equipment and Telecomm								
	ADP Equipment (>$100K)								
0014	INFORMATION TECHNOLOGY (IT) CONSOLIDATION - DMRD 924	VAR	7.7	VAR	11.5				
0015	RADIOLOGICAL CONTROLS COMPUTER SYSTEM (RCCS) - - AUTOMATED RADIOLOGICAL CONTROLS MIS (ARCMIS)			4	1.5				
0016	EDMICS UPGRADE							1	0.2
0017	JLSC DMSS IOS HARDWARE			VAR	6.3		8.2		7.2
	Subtotal ADP Equipment (>$100K)		7.7		19.3		8.2		7.4
0018	Subtotal ADP Equipment (FY94:>$25K<$100K; FY95/97:>$50K<$100K)		0.0	VAR	0.0	VAR	0.0	VAR	1.0
	Total ADP Equipment (FY94:>$25K;FY95/97:>$50K)	VAR	7.7	VAR	19.3	VAR	8.2	VAR	8.4
	3. Software Development		0.0		0.0		0.0		0.0
	(Off The Shelf Software Listed Separately)								

000128

BUSINESS AREA CAPITAL BUDGET SUMMARY

Department of the Navy

Depot Maintenance/Naval Shipyards

FY 96/97 President's Budget

($ in Millions)

LINE #	Item Description	FY 1994		FY 1995		FY 1996		FY 1997	
		Quant	Total Cost	Quant	Total Cost	Quant	Total Cost	Quant	Total Cost
	4. Minor Construction								
	Minor Construction (>$200K<$300K) (Replacement/Productivity/New Mission)								
0019	NAVSHIPYD Portsmouth							1	0.3
0020	NAVSHIPYD Norfolk							1	0.2
0021	NAVSHIPYD Long Beach							1	0.3
0022	NAVSHIPYD Puget Sound							7	0.7
	Subtotal Minor Construction (FY 96/97>$200K<$300K)							VAR	1.4
0023	Subtotal Minor Construction (FY94:>$25K<$300K;FY 95/97:>$50K<$200K) (Replacement/Productivity/New Mission)	VAR	11.5	VAR	0.8	VAR	1.0	VAR	5.6
	Total Minor Construction (FY94:>$25K<$300K;FY95/97:>$50K<$300K)	VAR	11.5	VAR	0.8	VAR	1.0	VAR	7.0
	Grand Total Capital Purchase Program	VAR	63.3	VAR	33.1	VAR	17.2	VAR	51.0

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION ($ In Millions)		A. FY 96/97 President's Budget
B. Department of the Navy/Depot Maintenance/Naval Shipyards	C. 0001 60 TON PORTAL CRANES - REPLACEMENT	D. Activity, Location LONG BEACH, PUGET SOUND, PORTSMOUTH AND PEARL

	FY 1996			FY 1997		
Element of Cost	Qty	Unit	Total	Qty	Unit	Total
END ITEM	1	1	6.3	2	2	12.5

Narrative Justification:

The shipyard portal cranes provide the waterfront lifting capability essential to the repair and overhaul of ships. The majority of the existing portal cranes were procured in the 1940's. They were overhauled regularly but are aging. Critical frame members have exhibited stress cracking and reliability is becoming an increasing problem. The manufacturers of many of these cranes are no longer in business. Further overhauls are not feasible in light of structural fatigue problems. Many of the portal cranes planned for replacement have configuration problems: e.g. hook height or boom reach are limited and are unable to adequately service the current ships under repair at the shipyards. Many cannot be relied upon for critical lifts and do not meet OSHA standards for certain operations.

Unit costs vary due to track configuration, installation and transportation costs at each naval shipyard.

These are essential projects required to the support the shipyard mission.

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION ($ In Millions)		A. FY 96/97 President's Budget
B. Department of the Navy/Depot Maintenance/Naval Shipyards	C. 0002 HAZ MIN/PAINTING EQUIPMENT - REPLACEMENT	D. Activity, Location Portsmouth

	FY 1996			FY 1997		
Element of Cost	Qty	Unit	Total	Qty	Unit	Total
ABRASIVE BLAST BOOTHS				2	0.5	1.0

Narrative Justification:

Abrasive blast booths: This project will replace existing abrasive blast booths that are beyond economical repair and can no longer meet Maine Department of Environmental Protection (DEP) clean air requirements due to poor condition of the enclosures and operating systems. equipment is required to comply with new technical requirements and provide this shipyard with needed production capabilities.

This is an essential project required to support the shipyard mission.

0001131

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION ($ In Millions)		A. FY 96/97 President's Budget
B. Department of the Navy/Depot Maintenance/Naval Shipyards	C. 0003 BRIDGE CRANES - REPLACEMENT	D. Activity, Location Portsmouth and Puget Sound

	FY 1996			FY 1997		
Element of Cost	Qty	Unit	Total	Qty	Unit	Total
Total				3	VAR	1.4
5 TON CAPACITY				1	0.5	0.5
60 TON CAPACITY				2	0.5	0.9

Narrative Justification:

These projects will replace bridge cranes, manufactured during 1942, 1920, 1943, 1919 and 1941 which are continuously in need of repair and are difficult to maintain. These cranes support various ship repair and overhaul operations. Non-availability of replacement parts and increasing inspection deficiencies are causing major delays in crane service in addition to concerns for worker and equipment safety. Replacement cranes will eliminate those problems inherent with operating excessively old equipment and will insure reliable and safe crane service into the next century. Specific justifications follow:

5 ton bridge crane: This crane supports the saw mill which is essential to the manufacturing of docking cradles and keel blocks necessary to drydock surface ships and submarines undergoing maintenance, overhaul and modernization.
This is an essential project required to support the shipyard mission.

60 ton bridge cranes: These cranes support propeller shop repair work which is essential to the repair and overhaul of surface ships and submarines undergoing maintenance, overhaul and modernization. This equipment has been taken out of service and lifts are currently being performed by rental cranes. This is an essential project to support the shipyard mission. Savings on rental fees to be realized through this purchase are estimated at $120,000 per year.

0001132

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION ($ In Millions)		A. FY 96/97 Presidents's Budget
B. Department of the Navy/Depot Maintenance/Naval Shipyards	C. 0004 CRANES, MOBILE, TRUCK - REPLACEMENT	D. Activity, Location LONG BEACH AND PUGET SOUND

	FY 1996			FY 1997		
Element of Cost	Qty	Unit	Total	Qty	Unit	Total
Total				5	VAR	4.3
50 TON CAPACITY				1	.5	.5
40 TON CAPACITY				1	.5	.5
110 TON CAPACITY				1	1.4	1.4
150 TON CAPACITY				1	1.6	1.6
100 TON CAPACITY				1	.3	.3

Narrative Justification:

The shipyard truck cranes provide general purpose waterfront (at locations which cannot be serviced by portal or floating cranes) and industrial outdoor and infrequent indoor lifting capability essential to the repair and overhaul of ships. The existing truck cranes were procured in the 1960's and 1970's. They were overhauled regularly but are aging. Critical components have exhibited stress and reliability is becoming an increasing problem. Further overhauls are not feasible in light of repeated problems. Specific justifications follow:

40 ton crane: This is an essential project required to support the shipyard mission.

50 ton crane: This is an essential project required to support the shipyard mission.

100 ton crane: This equipment (four cranes) has been surveyed and lifts are currently being performed by a rental crane. This is an essential project required to support the shipyard mission. Savings on rental fees to be realized through this purchase are estimated at $156,000 per year.

110 ton crane: This equipment has been surveyed and lifts are currently being performed by a rental crane. This is an essential project required to support the shipyard mission. Savings on rental fees to be realized through this purchase are estimated at $484,632 per year.

150 ton crane: This equipment has been surveyed and lifts are currently being performed by a rental crane. This is an essential project required to support the shipyard mission. Savings on rental fees to be realized through this purchase are estimated at $574,632 per year.

000133

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION ($ In Millions)		A. FY 96/97 President's Budget
B. Department of the Navy/Depot Maintenance/Naval Shipyards	C. 0005 HORIZONTAL BORING MILLS, REMANUFACTURE - REPLACEMENT	D. Activity, Location Portsmouth, Norfolk

	FY 1996			FY 1997		
Element of Cost	Qty	Unit	Total	Qty	U it	Total
Total				2	3.6	3.6
Horiz. Boring Mill, 5"				1	.6	.6
Horiz. Boring Mill, 7"				1	3.0	3.0

Narrative Justification:

5 inch horizontal boring mill: This project will restore this numerically controlled (NC) machine's original mechanical design specifications and upgrade it's NC capabilities consistent with modern machine tool technology, and correct environmental deficiencies. This machine is currently operated manually and at 50 percent of it's rated speed limiting the complexity and capacity at which work can be accomplished. The cooling system for the hydraulics plant uses Freon which is environmentally unsafe and will be replaced by this project with a suitable substitute. Maintenance required by this machine is increasing and repair parts for the NC controller are unavailable.

This is an essential project required to support the shipyard mission.

7 inch horizontal boring mill: This project will refurbish and retrofit the existing machine with a Computer Numerical Control unit with Manual Data Input (CNC-MDI). The existing controls are obsolete and can no longer be maintained. After the upgrade, the CNC machine will be used at a greater speed and capacity and will be capable of maintaining dimensional accuracy to plus or minus 0.0005 inches in all axes of travel. The stability and rigidity of a rebuilt machine will enable a high quality surface finish where specified. The CNC-MDI capabilities will reduce operator error and save time through reduced tooling, material handling, rework and setup. This machine has unique capabilities and is required to repair and refurbish shipboard components such as weapons and aircraft elevator platforms, doors, rails, etc. The machine also has a large capacity rotary table which, when used, will ensure proper alignment of many shipboard items such as large pumps and turbines, hatch covers, and weapons handling devices. Line boring is required to ensure that large machinery components are correctly aligned after overhaul for reinstallation aboard ship.

This equipment is considered a mission essential requirement.

0001134

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION ($ In Millions)		A. FY 96/97 President's Budget
B. Department of the Navy/Depot Maintenance/Naval Shipyards	C. 0006 PIPE BENDER, 6", SEMI-AUTOMATIC - REPLACEMENT	D. Activity, Location NORFOLK

	FY 1996			FY 1997		
Element of Cost	Qty	Unit	Total	Qty	Unit	Total
END ITEM				1	.7	.7

Narrative Justification:

This project will replace an existing 6" pipe bender which is nearing the end of its service life and is becoming unable to meet tolerances required in an environment which demands ever increasing quality and precision to accomplish accurate shipboard fit. A 6" Semi-Automatic Bender must be acquired in order to accomplish the demands of work currently assigned to this shipyard and the work planned in the future. The work mix assigned to this shipyard over the next six years will require their pipe shop to bend a greater quantity of large diameter pipe (4"-6" NPS) than in the past. Future large diameter pipe bending will include: (1) Fuel oil piping (6" NPS) on LPH and LPD class ships, (2) Seawater piping (4"-6" NPS) on LHA class ships and (3) Firemain piping on all classes on non-nuclear surface craft. In addition, the acquisition of this equipment will ensure that large diameter production bends will be in accordance will all technical requirements (Industrial Process Instruction 0056-454).

This is an essential project required to support the shipyard mission.

0001135

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION ($ In Millions)		A. FY 96/97 President's Budget
B. Department of the Navy/Depot Maintenance/Naval Shipyards	C. 0007 ONBOARD DISCHARGE TANKS, BLASTING EQUIPMENT	D. Activity, Location NORFOLK

	FY 1996			FY 1997		
Element of Cost	Qty	Unit	Total	Qty	Unit	Total
END ITEM				1	.8	.8

Narrative Justification:

During a newly required Incremental Maintenance Plan (IMP), this shipyard must support the refurbishing of contaminated Discharge Storage Tanks (DSTs) on CVNs in accordance with new technical requirements. In order to support this work, an upgrade of the shipyard blasting equipment is required to complete this critical work path as assigned.

This is an essential project required to support the shipyard mission.

UC/FUND 9B

000136

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION ($ In Millions)		A. FY 96/97 President's Budget
B. Department of the Navy/Depot Maintenance/Naval Shipyards	C. 0008 EQUIPMENT (FY 94: >$25K<$500K; FY 95/97: >$50K<$500K)	D. Activity, Location PTSMH, NORVA, LBEACH, PUGET, PEARL

	FY 1996			FY 1997		
Element of Cost	Qty	Unit	Total	Qty	Unit	Total
END ITEM	VAR	VAR	1.8	VAR	VAR	11.3

Narrative Justification:

These items are required for naval shipyards to accomplish assigned work, to meet mandatory regulations and to replace overage and unreliable equipment. Included are refueling support equipment; mandatory CESE/MHE replacements; equipment to reduce or contain hazardous materials and wastes; equipment to improve or maintain air quality in the work place; laboratory equipment and other items.

These are essential projects required to the support the shipyard mission.

0001137

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION ($ In Millions)		A. FY 96/97 President's Budget PORTSMOUTH
B. Department of the Navy/Depot Maintenance/Naval Shipyards	C. 0009 EDMICS UPGRADE	D. Activity, Location PORTSMOUTH

	FY 1996			FY 1997		
Element of Cost	Qty	Unit	Total	Qty	Unit	Total
END ITEM				1	0.2	0.2

Narrative Justification:

This project supports the upgrade of the Joint Engineering Data Management Information and Control System (JEDMICS). JEDMICS is a DOD Computer-aided Acquisition and Logistics Support (CALS) initiative. The JEDMICS provides a standard digital platform for storing, indexing, reproducing and distributing engineering drawings and technical data. The productivity enhancements from JEDMICS implementation have been reported through the CALS productivity plan under DMRD 939. This upgrade is a planned replacement for obsolete workstations.

0001138

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION ($ In Millions)		A. FY 96/97 President's Budget
B. Department of the Navy/Depot Maintenance/Naval Shipyards	C. 0010 DEPOT MAINTENANCE STANDARD SYSTEM (DMSS) IOS HARDWARE (JLSC)	D. Activity, Location Long Beach, Norfolk, Pearl Harbor, Portsmouth, Puget Sound

	FY 1996			FY 1997		
Element of Cost	Qty	Unit	Total	Qty	Unit	Total
HARDWARE:						
MID TIER	VAR		0.9	VAR		0.7
USER LEVEL	VAR		7.3	VAR		6.5
TOTAL			8.2			7.2

Narrative Justification:

These funds are to support the fielding of the Depot Maintenance Standard System (DMSS) being developed by the Joint Logistics System Center to the Navy NSY maintenance depots. During the recent budget review, the responsibility for acquisition of hardware was transferred from JLSC to the Military Services.

The Depot Maintenance Standard System (DMSS) was created in response to the DOD initiative to standardize logistics systems across DOD and the Military Services' related need for a more capable information systems technical infrastructure in their depots. Over the past two years, the Joint Logistics Systems Center (JLSC), working with the Services, has evaluated the business processes of the depots, investigated alternative maintenance management concepts and reviewed the Services' legacy environment, depot AIS development efforts and commercially available systems. These efforts have sustained the need to modernize the platforms and hardware represented by this submittal.

DMSS will provide the Services a revolutionary step forward in functional capability and automation, including a systems infrastructure upon which to make significant strides in business process improvement. Benefits will be realized in two primary areas: business performance and information systems costs. Business performance will be enhanced through process improvements delivered by DMSS applications to support Depot Maintenance improved Functional Baseline (IFB). These improvements include:

Reduced inventories through improved planning and tracking
Reduced labor through better resource and work planning
Reduced overhead through automation and the elimination of non-value added activity
Shorter cycle times through better planning and management information to control operations
Improved schedule performance through more complete asset visibility

Once implementation is complete and legacy applications are reduced or eliminated, ADP costs will come down markedly!

000139

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION ($ In Millions)		A. FY 96/97 President's Budget
B. Department of the Navy/Depot Maintenance/Naval Shipyards	C. 0010 DEPOT MAINTENANCE STANDARD SYSTEM (DMSS) IOS HARDWARE (JLSC)	D. Activity, Location Long Beach, Norfolk, Pearl Harbor, Portsmouth, Puget Sound

Narrative Justification (continuation):

Without this investment, needed improvements to the depot/shipyard business process and infrastructure will not be achieved. Implementing enhanced repair and overhaul capabilities is a critical contribution toward improving mission readiness in a downsizing environment. As the DOD weapon systems continue to age, reductions to the workforce continue and the number of depot/shipyards are reduced, efficient and effective organic repair capability is of increasingly growing importance to DOD in sustaining weapons systems combat readiness. In order to meet this demand, the depot/shipyard community needs to strengthen its' business processes and the associated information infrastructure (hardware).

000140

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION ($ In Millions)		A. FY 96/97 President's Budget
B. Department of the Navy/Depot Maintenance/Naval Shipyards	C. 0011 ADP EQUIPMENT (>$50K<$100K)	D. Activity, Location PORTSMOUTH, NORFOLK, LONG BEACH, PUGET SOUND, PEARL HARBOR

	FY 1996			FY 1997		
Element of Cost	Qty	Unit	Total	Qty	Unit	Total
END ITEM				VAR	VAR	1.0

Narrative Justification:

These items are required for naval shipyards to accomplish assigned work, to meet mandatory regulations and to replace obsolete and unreliable equipment. Projects in this category include "fact of life" replacements for broken or unreliable equipment, and mandatory replacement of equipment to support emergent work assignments.

000141

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION ($ In Millions)		A. FY 96/97 President's Budget
B. Department of the Navy/Depot Maintenance/Naval Shipyards	C. 0012 MINOR CONSTRUCTION (FY 96/97: >$200K <$300K) NAVSHIPYD PORTSMOUTH	D. Activity, Location PORTSMOUTH

	FY 1996			FY 1997		
Element of Cost	Qty	Unit	Total	Qty	Unit	Total
END ITEM				1	0.3	0.3

Narrative Justification:

East/West Cross Connect for Steam Distribution - $250K

This construction will provide a new connection between the existing East-side and West-side steam distribution systems. Each system is presently fed independently from the existing power generating plant. There is presently no interconnection between these two separate distribution systems. Routine maintenance and emergency repairs to certain parts of either system results in complete shut down of half the shipyard during repairs. The proposed construction will provide a cross connection outside the power plant which will give the capability to service segments of the downed distribution line while the activity continues daily functions.

000142

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION ($ In Millions)		A. FY 96/97 President's Budget
B. Department of the Navy/Depot Maintenance/Naval Shipyards	C. 0013 MINOR CONSTRUCTION (FY 96/97: >$200K <$300K) NAVSHIPYD NORFOLK	D. Activity, Location NORFOLK

	FY 1996			FY 1997		
Element of Cost	Qty	Unit	Total	Qty	Unit	Total
END ITEM				1	0.2	0.2

Narrative Justification:

Enclose Hi-Bay Area, Bldg 261 - $215K

This project will enclose the existing South and West walls of the ship repair shop, Building 261, presently exposed to climatic conditions. The work will encompass enclosing the area with aluminum siding and provide three bay doors. The work will also include the removal of lead paint and painting the vertical steel columns. This work will provide additional enclosed storage area need for ship repair shop services for storage of related associated equipment. The work is the most cost effective method based on cost and siting of the facility.

Construct Facility to House Equipment at Antenna Test Range - $200K

This project proposes to build a 615 SF building at the existing antenna test range at St Julian's Creek Annex. The facility will be complete with all utilities and hook-ups required to install and operate the equipment presently located in Building 1455. Building 1455 can no longer be used as a result of its close proximity to a recently installed electrical substation. Due to potential personnel injury or damage to the substation due to induced electrical current arcing, the equipment cannot be used in its existing location. The alternative, to eliminate existing electromagnetic interference around Building 1455, would be more expensive, and would not eliminate the potential hazards to personnel in a highly congested production area.

0001143

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION ($ In Millions)		A. FY 96/97 President's Budget
B. Department of the Navy/Depot Maintenance/Naval Shipyards	C. 0014 MINOR CONSTRUCTION (FY 96/97: >$200K <$300K) NAVSHIPYD LONG BEACH	D. Activity, Location LONG BEACH

	FY 1996			FY 1997		
Element of Cost	Qty	Unit	Total	Qty	Unit	Total
END ITEM				1	0.3	0.3

Narrative Justification:

Metering Base Usage Electrical Demand - $283K

Project will alter the existing station electrical distribution system to alleviate the high electrical energy demand of Southern California Edison Company. The alterations will assist the station in monitoring electrical peak demand for the development of the best load shedding plan in conjunction with the Southern California Edison Company.

Dewater Pumps Alteration - $291K

Project will alter existing Drydock I dewatering pumps. The existing pumps and motors have a capacity of 85 hp. The work proposed by this project will increase the pumping capacity by installing 150 hp rated pumps and motors. This effort will reduce dewatering time and improve the dewatering system of Drydock 1 and result in standardization of the submersible pumps and controllers.

000144

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION ($ In Millions)		A. FY 96/97 President's Budget
B. Department of the Navy/Depot Maintenance/Naval Shipyards	C. 0015 MINOR CONSTRUCTION (FY 96/97: >$200K <$300K) NAVSHIPYD PUGET SOUND	D. Activity, Location PUGET SOUND

	FY 1996			FY 1997		
Element of Cost	Qty	Unit	Total	Qty	Unit	Total
END ITEM				3	VAR	0.7

Narrative Justification:

Install Hazardous Waste Lines To Bldg 871 - $275K

This project replaces the existing hazardous waste transfer line between two existing buildings. A waste stream from Bldg 856 called "fish Glue" is being collected in portable tanks and transported to Bldg 871 several times a week for processing. Since the waste contains chrome, it is not legal to mix with the waste being transported to the existing transfer pipe. The project provides a second transfer pipe.

Provide Vehicle Washdown Area - $202K

Project will construct a wash down facility for the processing of soiled refuse trucks and other large vehicles in an environmentally safe manner prior to commencing recurring and annual vehicle maintenance. The vehicle wash rack will also reduce personnel injuries to vehicle operators and mechanics working around soiled/muddy equipment.

Training Facility - $200K

Project will construct a training facility adjacent to the existing apprentice school. Emphasis has been placed on increased technical training for shipyard employees. The demand for training has increased the necessity for additional educational facilities for hands-on-training. Although staggering of courses has been implemented to minimize the demand on the existing facility an additional facility is required to accommodate the training aides and equipment used in employee training.

000145

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION ($ In Millions)	A. FY 96/97 President's Budget
B. Department of the Navy/Depot Maintenance/Naval Shipyards	C. 0016 MINOR CONSTRUCTION PROJECTS (FY 94/95: >$25,000<$300,000; FY 95/97: >$50K<$200K) (Sheet 1 of 3)
	D. Activity, Location PTSMH, NORVA, LBEACH PEARL, PUGET

	FY 1996			FY 1996		
Element of Cost	Qty	Unit	Total	Qty	Unit	Total
END ITEM	VAR	VAR	1.0	VAR	VAR	5.6

Narrative Justification:

The erection, installation and assembly of new mission essential facilities as well as the extension, alteration, conversion, replacement and relocation of existing facilities is mandatory for the Navy to reduce operating costs and meet readiness requirements. Naval shipyards must maintain facilities that average 50 years and in some instances are over 200 years old. Some of these facilities are structurally unsound and contain materials that are now considered harmful. In some cases less efficient temporary facilities are used in order to meet mission requirements.

New facilities are required to meet new mission changes, to correct environmental concerns and to reduce operating costs. Facilities on the West coast that do not meet seismic requirements need to be renovated/replaced. Some facilities on the East and West coasts contain asbestos hazards which must be abated. Additional lighting is required to provide sufficient illumination to waterfront and perimeter areas to prevent unauthorized infiltration and reduce personal injury. Finally, the construction of facilities is required to comply with environmental laws and regulations. The projects associated with this line item is as follows:

FY 1996:

Norfolk Naval Shipyard:

Installation of Additional Drain Pump, Dry Dock #8 - $100K
Relocate Code 135 "Paint Test Facility" - $186K
Convert Battery Charging Facility, Building 260 - $100K

000146

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION ($ In Millions)		A. FY 96/97 President's Budget
B. Department of the Navy/Depot Maintenance/Naval Shipyards	C. 0016 MINOR CONSTRUCTION PROJECTS (FY 94/95: >$25,000<$300,000; FY 95/97: >$50K<$200K) (Sheet 2 of 3)	D. Activity, Location PTSMH, NORVA, LBEACH PEARL, PUGET

	FY 1996			FY 1996		
Element of Cost	Qty	Unit	Total	Qty	Unit	Total
END ITEM						

Narrative Justification (continuation):

FY 1996:

Portsmouth Naval Shipyard:

Construct Ductbank, Electric Loadhouse, Dry Dock #3 - $176K
Alter Building #311 for Pure Water Project - $165K

Puget Sound Naval Shipyard:

Enclose North Breezeway - $182K
Install Electric Services on Quay Wall - $170K

FY 1997:

Norfolk Naval Shipyard:

Repair of Building #14 - $100K
Repair of Building #31 - $132K
Antenna Test Range Enclosure - $199K
Local Minor Construction (>50K - <$200K) - $1.5M

000147

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION ($ In Millions)		A. FY 96/97 President's Budget
B. Department of the Navy/Depot Maintenance/Naval Shipyards	C. 0016 MINOR CONSTRUCTION PROJECTS (FY 94/95: >$25,000<$300,000; FY 95/97: >$50K<$200K) (Sheet 3 of 3)	D. Activity, Location PTSMH, NORVA, LBEACH PEARL, PUGET

	FY 1996			FY 1996		
Element of Cost	Qty	Unit	Total	Qty	Unit	Total
END ITEM						

Narrative Justification (continuation):

FY 1997:

Puget Sound Naval Shipyard:

Install New Track, West End - $180K
Upgrade Substation #13 - $139K
Various Minor Construction Design Costs - $120K
Local Minor Construction Projects and Design Costs (variuos) - $1.96M

Pearl Harbor Naval Shipyard:

Local Minor Expense Alterations and Design (various) - $400K
Local Minor Expense Construction and Design Projects (various) - $65K

Long Beach Naval Shipyard:

Local Minor Construction and Design, Environmental, Various(>$50K - <$100K) - $270K
Local Minor Construction and Design, Various (>$50K - <$100K) - $270K

Portsmouth Naval Shipyard:

Environmental Controls, Bldg. #16 Annex - $135K
Renovate Gate #1 Pass Office - $150K
Local Minor Construction and Design, Various (>$50K - <$100K) - $250K

UC/FUND 9B

000148

FY 1995 DBOF Capital Program Reconcilliation

FY 1995 DBOF Capital Purchases
Deferrals, Cancellations, Substitutions

The following describes the changes in the Capital Purchase Program from the FY 1995 President's Budget to the FY 1995 column of the FY 1996/1997 President's Budget. The categories are as follows:

a.) Category of purchase/project name, as noted in the FY 1995 President's Budget
b.) Disposition of project: cancellation, deferral and/or substitution
c.) Explanation for cancellation or deferral and substitution

000149

FY 1995 DBOF C. .AL PURCHASES
DEFERRALS, CANCELLATIONS, SUBSTITUTIONS

NAVAL SHIPYARDS
($ 000s)

1. Depot Maintenance - Naval Shipyards
   a. Non-ADPE and Telec. Equipment (>$500K)
      60 TON PORTAL CRANES (Project P026-95/Project P058-95) $12,500
   b. Reduction and Cancellation
   c. Project P026-95 reduced from $6.25M to $5M following contract award which determined actual line item cost. Project P058-95 canceled due to Congressional reduction to DBOF capital program.

2. Depot Maintenance - Naval Shipyards
   a. Non-ADPE & Telec. Equipment (>$500K) - TURN/MIL CENTER (P013-95) $960
   b. Cancellation.
   c. Replaced by Contact N62472-87-C-1450 Crane Contract Settlement.

3. Depot Maintenance - Naval Shipyards
   a. Non-ADPE & Telec. Equipment (>$500K) - HORIZ BORING MILL REMANUFACTURE (P011-95) $950
   b. Cancellation.
   c. Replaced by Contact N62472-87-C-1450 Crane Contract Settlement.

4. Depot Maintenance - Naval Shipyards
   a. Non-ADPE & Telec. Equipment (>$500K) - BORING MACH, HORIZONTAL, CNC $1,950
   b. Cancellation
   c. Directed to fund collateral equipment project MCON P-622.

000150

FY 1995 DBOF CAPITAL PURCHASES
DEFERRALS, CANCELLATIONS, SUBSTITUTIONS

NAVAL SHIPYARDS
($ 000s)

5. Depot Maintenance - Naval Shipyards
   a. Non-ADPE & Telec. Equipment (>$500K) - COLLATERAL EQUIPMENT FOR MCON PROJECT P622w (P034-94B & P-24-95) $3,182
   b. Substitution
   c. Project deferred from FY 94 to FY 95. Project revised and increased from $1.028M in FY 94 to $3.182M in FY 95. Collateral equipment acquisition required by mid FY 95 to meet mission requirements for nuclear aircraft carrier scheduled availability.

6. Depot Maintenance - Naval Shipyards
   a. Non-ADPE & Telec. Equipment (>$500K) - PUNCH PRESS, CNC $550
   b. Cancellation
   c. Replaced by automatic welding system which was canceled by Congressional reduction to DBOF program.

7. Depot Maintenance - Naval Shipyards
   a. Non-ADPE & Telec. Equipment (>$500K) - CONTRACT N62472-87-C-1450 SETTLEMENT $3,608
   b. Substitution
   c. Emergent mandatory requirement to fund negotiated contract settlement as a result of contract change orders over a period from 1987 to present.

000151

FY 1995 DBOF Capital Program Reconcilliation

FY 1995 DBOF Capital Purchases
Funding Disposition of Deferrals, Cancellations, Substitutions

The following describes the changes in the Capital Purchase Program from the FY 1995 President's Budget to the FY 1995 column of the FY 1996/1997 President's Budget. The categories are as follows:

a.) Category of purchase/project name, as noted in the FY 1995 President's Budget
b.) Disposition of project: cancellation, deferral and/or substitution
c.) Disposition of related funding

0001152

FY 1995 DBOF C. .TAL PURCHASES
DEFERRALS, CANCELLATIONS, SUBSTITUTIONS

FUNDING DISPOSITION

NAVAL SHIPYARDS
($ 000s)

1. Depot Maintenance - Naval Shipyards
   a. Non-ADPE and Telec. Equipment (>$500K)
      60 TON PORTAL CRANES (Project P026-95/Project P058-95) $12,500
   b. Reduction and Cancellation
   c. Disbursement - Project P026-95 reduced from $6.25M to $5M following contract award which determined actual line item cost. Project P058-95 $6.25M obligational authority and TOA removed by Congressional action

2. Depot Maintenance - Naval Shipyards
   a. Non-ADPE & Telec. Equipment (>$500K) - TURN/MIL CENTER (P013-95) $960
   b. Cancellation.
   c. Disbursement - $960K directed to fund unanticipated, mandatory, $3.608M contract settlement for Navy crane contract N62472-87-C-1450 with AmClyde Crane Co.

3. Depot Maintenance - Naval Shipyards
   a. Non-ADPE & Telec. Equipment (>$500K) - HORIZ BORING MILL REMANUFACTURE (P011-95) $950
   b. Cancellation.
   c. Disbursement - $950K directed to fund unanticipated, mandatory, $3.608M contract settlement for Navy crane contract N62472-87-C-1450 with AmClyde Crane Co.

4. Depot Maintenance - Naval Shipyards
   a. Non-ADPE & Telec. Equipment (>$500K) - BORING MACH, HORIZONTAL, CNC $1,950
   b. Cancellation
   c. Disbursement - $1.95M directed to fund collateral equipment project MCON P-622 (see item #5)

000153

FY 1995 DBOF CAPITAL PURCHASES
DEFERRALS, CANCELLATIONS, SUBSTITUTIONS

FUNDING DISPOSITION

NAVAL SHIPYARDS

($ 000s)

5. Depot Maintenance - Naval Shipyards
   a. Non-ADPE & Telec. Equipment (>$500K) - COLLATERAL EQUIPMENT FOR MCON PROJECT P622w (P034-94B & P-24-95) $3,182
   b. Substitution
   c. Disbursement - Project deferred from FY 94 to FY 95. Project revised and increased from $1.028M in FY 94 to $3.182M in FY 95. Funded with $1.95M from item 4 above, 102K from item #6 below, and $1.13M from Non-ADPE & Telec. Equipment (<$500K).

6. Depot Maintenance - Naval Shipyards
   a. Non-ADPE & Telec. Equipment (>$500K) - PUNCH PRESS, CNC $550
   b. Cancellation
   c. Disbursement - $448K directed to fund unanticipated, mandatory, $3.608M contract settlement for Navy crane contract N62472-87-C-1450 with AmClyde Crane Co. Remaining $102K directed to fund collateral equipment for MCON P-622 (item #5).

7. Depot Maintenance - Naval Shipyards
   a. Non-ADPE & Telec. Equipment (>$500K) - CONTRACT N62472-87-C-1450 SETTLEMENT $3,608
   b. Substitution
   c. Disbursement - Emergent mandatory requirement to fund negotiated contract settlement as a result of contract change orders over a period from 1987 to present. Funded $1.25M from item # 1, $960K from Item # 2., $950K from item # 3, and $448K from item # 6.

000154

DEPARTMENT OF THE NAVY
DEFENSE BUSINESS OPERATIONS FUND
NAVAL AVIATION DEPOTS

ACTIVITY GROUP FUNCTION

To provide responsive worldwide maintenance, engineering, and logistics support to the Fleet and ensure a core industrial resource base essential for mobilization; repair of aircraft, engines, and components; and manufacture of parts and assemblies. Also provided are engineering services used in the development of hardware design changes and technical and other professional services needed to resolve maintenance and logistics problems.

ACTIVITY GROUP COMPOSITION

Activities	Location
NAVAVNDEPOT, Alameda	Alameda, CA
NAVAVNDEPOT, Cherry Point	Cherry Point, NC
NAVAVNDEPOT, Jacksonville	Jacksonville, FL
NAVAVNDEPOT, North Island	San Diego, CA
NAVAVNDEPOT, Norfolk	Norfolk, VA
NAVAVNDEPOT, Pensacola	Pensacola, FL

BUDGET HIGHLIGHTS

BRAC-93 Decisions. The budget incorporates the Congressional approval for the closure of Naval Aviation Depots (NADEPs) Alameda, Norfolk and Pensacola. The Cease Primary Mission Operations (CPMO) and Closure Implementation (CI) dates for NADEP Pensacola are September 1995 and March 1996 respectively. The CPMO and CI dates for NADEPs Norfolk and Alameda are September 1996 and March 1997 respectively. Attainment of these dates is predicated on the availability and timeliness of Base Realignment and Closure (BRAC) funding. Issues facing the closing depots are very different from the ones facing the remaining depots. The closing depots face the task of completing their remaining mission work as efficiently as possible, while at the same time phasing down toward closure. The remaining depots face the task of gearing up for additional workload transferring from the closing depots, while at the same time continuing their strong commitment to productivity improvement and cost efficiency. BRAC costs in this budget are $143.4M in FY 1995, $146.9M in FY 1996, and $6.2M in FY 1997. There are BRAC costs at the remaining depots as well as the closing depots. This is due to the transitioning of workload from the closing depots to the gaining depots as a result of BRAC 93 workload realignment. NADEP Pensacola becomes a non-DBOF activity in FY 1996 and NADEPs Alameda and Norfolk become non-DBOF activities in FY 1997. The closing depots will become "Mission Funded" after their CPMO dates and will receive additional BRAC funding of $8.9M in FY 1996 and $33.3M in FY 1997 to finance the last six months of operations.

STABILIZED RATES. The NADEPs stabilized billing rates for FY 1994 through FY 1997 are as follows:

	FY 1994	FY 1995	FY 1996	FY 1997
Rate	$106.24	$133.80	$110.42	$114.10
% Change	-	+25.9%	-17.5%	+3.3%

The FY 1995 stabilized rates included a $16.35 positive recoupment to recover prior years losses and a $1.90 surcharge per direct labor hour for the Joint Logistics Systems Center (JLSC). The FY 1996 stabilized rates were not increased to recover prior years losses at the closing depots. Instead, a Passthrough of $261.3M and a Redistribution of $245.0M are budgeted to offset these losses. The proposed FY 1997 composite stabilized rate of $114.10 is an increase of 3.3% when compared with the FY 1996 composite rate. This increase is due primarily to inflation.

Workload. New reimbursable orders for FY 1994 through FY 1997 are as follows (Dollars in Millions):

	FY 1994	FY 1995	FY 1996	FY 1997
Orders	$1,815.9	$1,801.3	$2,003.5	$1,352.4
% Change	-	-.8%	+11.2%	-32.5%

The increase from FY 1995 to FY 1996 is due to the FY 1996 Passthrough of $261.3M and increased BRAC funding of $3.5M offset by reduced workload and the closure of NADEP Pensacola. The Passthrough is to offset prior years losses at the three closing depots caused by less than breakeven rates in FY 1993 and FY 1994 and underapplication of overhead in FYs 1994, 1995, and 1996 resulting from reduced workload associated with BRAC 93. The decrease from FY 1996 to FY 1997 is due to reduced BRAC funding of $140.7M, reduced workload, and the closure of NADEPs Alameda and Norfolk. FY 1995, FY 1996, and FY 1997 stabilized rates include a surcharge for the JLSC of $30.0M, $25.5M, and $24.4M respectively. This translate to a surcharge amount of $1.90 per DLH in FY 1995, $1.92 per DLH in FY 1996, and $1.94 per DLH in FY 1997.

Revenue. Revenue for FY 1994 through FY 1997 are as follows (Dollars in Millions):

	FY 1994	FY 1995	FY 1996	FY 1997
Revenue	$1,772.4	$2,037.7	$1,790.5	$1,432.9
% Change	-	+15.0%	-12.1%	-20.0%

The increase from FY 1994 to FY 1995 is due mainly to the $188.6M recoupment, increased BRAC costs of $88.5M, and JLSC surcharge of $30.0M. The decrease from FY 1995 to FY 1996 is due to reduced workload and the closure of NADEP Pensacola in FY 1995. The decrease from FY 1996 to FY 1997 is due to reduced BRAC costs of $140.7M, reduced workload, and the closure of NADEPs Alameda and Norfolk in FY 1996.

Costs. Costs for FY 1994 through FY 1997 are as follows (Dollars in Millions):

	FY 1994	FY 1995	FY 1996	FY 1997
Costs	$1,961.4	$2,017.0	$1,866.7	$1,408.4
% Change	-	+2.8%	-7.5%	-24.6%

The increase from FY 1994 to FY 1995 is due mainly to increased BRAC costs of $88.5M. The decrease from FY 1995 to FY 1996 is due to reduced workload and the closure of NADEP Pensacola in FY 1995. The decrease from FY 1996 to FY 1997 is due to reduced BRAC costs of $140.7M, reduced workload, and the closure of NADEPs Alameda and Norfolk in FY 1996.

Net Operating Results (NOR). NOR for FY 1994 through FY 1997 are as follows (Dollars in Millions):

	FY 1994	FY 1995	FY 1996	FY 1997
NOR	$-192.0	$-8.8	$-101.6	$0.0
% Change	-	+95.4%	-105.5%	+100.0%

The increase from FY 1994 to FY 1995 is due mainly to the $188.6M recoupment. The decrease from FY 1995 to FY 1996 is due to an underapplication of overhead at the closing depots due to reduced workload. The increase from FY 1996 to FY 1997 reflects breakeven stabilized rates at the gaining depots and the closure of all three closing depots.

Accumulated Operating Results (AOR). AOR for FY 1994 through FY 1997 are as follows (Dollars in Millions):

	FY 1994	FY 1995	FY 1996	FY 1997
AOR	$-395.4	$-404.8	$0.0	$0.0
% Change	-	-2.4%	+100.0%	0.0%

The FY 1995 AOR and FY 1996 NOR losses are recovered by means of a Passthrough of $261.3M and Redistribution of $245.0M in FY 1996. These losses are at the closing depots.

Unit Cost Goals. The budget reflects the following FY 1994-1997 unit cost goals with BRAC and without BRAC (Dollars and Direct Labor Hours (DLHs) in Millions):

WITH BRAC				
	FY 1994	FY 1995	FY 1996	FY 1997
Total Costs	$1,961.4	$2,017.0	$1,866.7	$1,408.4
DLHs	17.186	16.648	15.691	13.398
Unit Cost	$114.13	$121.16	$118.97	$105.12
% Change Workload/DLHs	-	-3.1%	-5.7%	-14.6%
% Change Unit Cost	-	6.2%	-1.8%	-11.6%

WITHOUT BRAC				
	FY 1994	FY 1995	FY 1996	FY 1997
Total Costs	$1,906.5	$1,873.6	$1,719.8	$1,402.2
DLHs	16.506	15.315	14.321	12.772
Unit Cost	$115.50	$122.34	$120.09	$109.79
% Change Workload/DLHs	-	-7.2%	-6.5%	-10.8%
% Change Unit Cost	-	5.9%	-1.8%	-8.6%

The slight increase in Unit Cost, without BRAC, from FY 1994 to FY 1995 is due primarily to direct labor hours decreasing at a faster rate than costs due to the fixed nature of some costs (e.g., utilities, legal services, accounting, budgeting, and ADP services). The decrease from FY 1995 to FY 1996 reflects the efficiencies of downsizing from six to five NADEPS with the closure of NADEP Pensacola in FY 1995. The decrease from FY 1996 to FY 1997 reflects the efficiencies of downsizing from five to three NADEPs with the closure of NADEPs Alameda and Norfolk in FY 1996.

Performance Indicators. Some performance Indicators or ratios for FY 1994 through FY 1997 are as follows (Dollars in Millions):

	FY 1994	FY 1995	FY 1996	FY 1997
Assets/Liability Ratio	1.06	1.74	4.00	3.37
A/R Turnover Ratio	8.7	9.1	9.0	9.2
Inventory Turnover Ratio	12.3	14.6	18.9	19.7
Indirect Ratio	.40	.37	.37	.34
Schedule Comformance	96.0%	100.0%	100.0%	100.0%
Quality Deficiency Reports	0.2%	0.0%	0.0%	0.0%
Net Operating Results	-185.3	-9.4	404.8	0.0

The improvement in the ratios above reflect the recoupment of $188.6M in FY 1995 and passthrough of $261.3M in FY 1996; aggressive inventory management and overhead cost control policies; and downsizing from six to three depots.

Civilian End Strength and Workyears. Civilian End Strength and Workyears for FY 1994 through FY 1997 are as follows:

	FY 1994	FY 1995	FY 1996	FY 1997
E/S	17,145	14,797	12,969	**12,101
% Change	-	-13.7%	-12.4%	-6.7%
WYs w/o OT	17,233	16,463	*14,875	**12,263
% Change	-	-4.5%	-9.6%	-17.6%

* The number reported excludes 41 work years for NADEP Pensacola in FY 1996. These work years will be executed after mission cease date and will be funded directly through the BRAC account vice DBOF.

** The number reported excludes 76 end strength and 474 work years at NADEP Alameda and 60 workyears at NADEP Norfolk, who will be funded directly through BRAC.

The downward trend in civilian personnel for all years is driven principally by decreased workload and the closure of NADEP Pensacola in FY 1995 and NADEPs Alameda and Norfolk in FY 1996. This budget reflects the following amounts for Reduction-in-Force (RIF) and Voluntary Separation Incentive Pay (VSIP) (Dollars in Millions):

	FY 1994	FY 1995	FY 1996	FY 1997
SIP	$9.6	$33.4	$22.0	$0.0
RIF/Severance Pay	1.1	5.2	8.7	0.0
Health Care/Liability	0.0	0.2	0.4	0.0
Total	**$10.7**	**$38.8**	**$31.1**	**$0.0**

Military End Strength and Workyears. Military End Strength for FY 1994 through FY 1997 are as follows:

	FY 1994	FY 1995	FY 1996	FY 1997
E/S	220	200	145*	149
% Change	-	-9.1%	-27.5%	+2.8%
WYs	230	200	145*	149
% Change	-	-13.0%	-27.5%	+2.8%

*Does not include 54 end strength and workyears at activities in closure status.

The decrease in Military End Strength from FY 1994 to FY 1997 is due to the reduced workload and the closure of NADEPs Pensacola in FY 1995 and NADEPs Alameda and Norfolk in FY 1996.

Headquarters Costs and End Strength. Headquarters Costs and End Strength for FY 1994 through FY 1997 are as follows (Dollars in Millions):

	FY 1994	FY 1995	FY 1996	FY 1997
Costs	$16.7	$17.1	$17.9	$18.4
Civ E/S	193	193	193	193
Civ WYs	192	192	192	192
Mil E/S	46	46	51	51
Mil WYs	46	46	51	51

The increase in Headquarters costs from year to year is due mainly to inflation. The increase in military end strength from FY 1995 to FY 1996 is due to an omission of several overseas military billets in the FY 1995 Congressional Budget.

Environment. The NADEPs continue to make significant strides toward protection of human health and environment in this budget. All Class I and Class II requirements are funded to ensure full compliance with statutory, regulatory, or other legal standards. The following amounts are included in this budget for environmental compliance: $30.9M in FY 1994, $31.6M in FY 1995, $22.2M in FY 1996, and $9.8M in FY 1997. Additional environmental costs associated with BRAC 93 reflected in this budget are $1.4M in FY 1994, $9.8M in FY 1995, and $8.7M in FY 1996.

Summary of Capital Purchases Program (CPP): The NADEP CPP budget reflects the following requirements (Dollars in Millions):

	FY 1995	FY 1996	FY 1997
Grand Total Non-ADP CPP	$5.7	$19.5	$35.4
Grand Total ADPE CPP	4.2	3.3	1.3
Grand Total CPP	**$9.9**	**$22.8**	**$36.7**

NADEP capital investments were developed to reflect the impact of the closures of NADEPs Alameda, Norfolk, and Pensacola and compliance with the Chief of Naval Operations approved naval aviation depot maintenance industrial strategy. The CPP budget includes $5.1M in FY 1996 and $27.8M in FY 1997 for the purchase of Consolidated Automated Support System (CASS) stations. The Navy's CASS system along with the Army's Integrated Family of Test Equipment are now designated as the initial Department of Defense (DoD) families of testers for current and future DoD test needs. There is sufficient depreciation in the FY 1996 and FY 1997 rates to fund all CPP requirements.

DEFENSE BUSINESS OPERATIONS FUND
DEPARTMENT OF THE NAVY
NADEP
REVENUE AND EXPENSES
(Dollars in Millions)

	FY 1994	FY 1995	FY 1996	FY 1997
Revenue:				
Gross Sales	1,772.4	2,037.7	1,790.6	1,432.9
Operations	1,684.0	1,958.9	1,720.1	1,372.3
Capital Surcharge	3.1	29.4	25.5	24.4
Depreciation except Maj Const	70.9	49.4	45.0	36.1
Major Construction Depreciation	14.5	0.0	0.0	0.0
Other Income	0.0	0.0	261.3	0.0
Refunds/Discounts (-)	0.0	0.0	0.0	0.0
Total Income	**1,772.4**	**2,037.7**	**2,051.9**	**1,432.9**
Expenses:				
Cost of Materiel Sold from Inventory	0.0	0.0	0.0	0.0
Negotiated Purchases from Customers	0.0	0.0	0.0	0.0
Transportation	47.3	30.6	25.5	21.9
Salaries and Wages:				
Military Personnel	12.3	9.0	8.6	6.3
Civilian Personnel	837.2	761.7	761.7	593.2
Materials, Supplies and				
Parts used in Operations	621.7	704.1	636.0	555.2
Facility Repair Charge	12.7	1.5	6.9	6.0
Depreciation - Capital	70.9	49.4	45.0	36.1
Contracted Engineering Services	20.2	21.4	22.3	14.0
Lease Costs	0.9	1.3	1.3	1.0
Purchased Utilities	51.3	47.0	38.8	23.4
Purchased Communications	1.9	1.6	1.1	0.4
Equipment Maintenance	7.0	8.5	8.6	7.3
Fuel	4.3	3.3	3.0	2.5
Other Expenses	273.6	377.6	307.8	140.9
Total Expenses	**1,961.4**	**2,017.0**	**1,866.7**	**1,408.4**
Operating Result	(189.0)	20.6	185.2	24.4
Less Capital Surchg Reservation	3.1	29.4	25.5	24.4
Plus Appropriations Affecting NOR/AOR	0.0	0.0	0.0	0.0
Other Changes Affecting NOR/AOR	6.8	(0.6)	245.1	(0.0)
Net Operating Result	(185.3)	(9.4)	404.8	(0.0)
Prior Year AOR	(210.2)	(395.4)	(404.8)	0.0
Accumulated Operating Result	(395.4)	(404.8)	0.0	(0.0)

BUSINESS AREA ANALYSIS
DEPARTMENT OF THE NAVY
NADEP
SOURCE OF REVENUE
(Dollars in Millions)

	FY 1994	FY 1995	FY 1996	FY 1997
1. New Orders	1,815.9	1,801.3	2,003.5	1,352.4
a. Orders from DoD Components	898.2	1,133.9	1,260.1	874.9
Department of the Navy	805.5	982.7	1,092.5	862.2
Operations and Maintenance, Navy	464.8	591.8	727.8	507.8
Operations and Maintenance, Marine Corps	0.3	0.3	0.0	0.0
O&M, Navy Reserve	26.2	47.2	20.3	30.3
O&M, Marine Corps Reserve	0.0	0.0	0.0	0.0
Aircraft Procurement, Navy	275.9	299.2	294.9	289.8
Weapons Procurement, Navy	(2.0)	0.8	0.8	0.7
Shipbuilding & Conversion, Navy	0.2	0.0	0.0	0.0
Other Procurement, Navy	4.8	6.2	4.6	4.1
Procurement, Marine Corps	0.0	0.0	0.0	0.0
Family Housing, Navy and Marine Corps	0.0	0.0	0.0	0.0
Research, Development, Test & Eval, Navy	35.3	32.4	35.9	20.2
Military Construction, Navy	0.0	0.0	0.0	0.0
Other Navy Appropriations	(0.0)	4.7	8.1	9.2
Other Marine Corps Appropriations	0.0	0.0	0.0	0.0
Department of the Army	0.5	1.5	0.9	0.0
Army Operation & Maintenance Accounts	0.4	1.2	0.0	0.0
Army Res, Dev, Test & Eval Accounts	0.0	0.0	0.0	0.0
Army Procurement Accounts	0.0	0.0	0.0	0.0
Army Other	0.0	0.2	0.8	0.0
Department of the Air Force	8.0	5.0	18.4	5.3
Air Force Operation & Maintenance Accounts	7.4	2.1	16.0	3.1
Air Force Res, Dev, Test & Eval Accounts	0.1	0.0	0.0	0.0
Air Force Procurement Accounts	0.0	0.0	0.0	0.0
Air Force Other	0.6	2.9	2.4	2.1
DoD Appropriated Accounts	84.3	144.8	148.3	7.5
Base Closure and Realignment	63.7	143.4	146.9	6.2
Operation & Maintenance Accounts	1.7	0.1	0.1	0.1
Res, Dev, Test & Eval Accounts	0.3	0.1	0.1	0.1
Procurement Accounts	5.3	1.1	1.1	1.0
DoD Other	13.4	0.1	0.1	0.1
b. Orders from DBOF Business Areas	823.3	620.0	713.3	450.2
c. Total DoD	1,721.5	1,753.8	1,973.3	1,325.2
d. Other Orders	94.4	47.4	30.1	27.3
Other Federal Agencies	5.4	7.5	3.4	3.4
Trust Funds (including FMS)	88.8	39.6	26.6	23.6
Non Federal Agencies	0.2	0.2	0.2	0.3
2. Carry-In Orders	1,314.0	1,357.4	1,121.0	1,072.6
3. Total Gross Orders (available funding)	3,129.8	3,158.7	3,124.5	2,425.1
4. Carry-Out Orders	1,357.4	1,121.0	1,072.6	992.2
Change in Backlog (carry-out less carry-in)	43.4	(236.4)	(48.4)	(80.4)
5. Total Gross Sales	1,772.4	2,037.7	2,051.8	1,432.9

Summary of Price, Program and Other Changes (Operating Budget)
Department of the Navy
NADEP
February 1995
($ in Thousands)

	Cost of Operations **FY 1994**	Price Growth	Program & Other Changes	Cost of Operations **FY 1995**	Price Growth	Program & Other Changes	Cost of Operations **FY 1996**	Price Growth	Program & Other Changes	Cost of Operations **FY 1997**
Military Personnel Compensation	12,320	240	(3,513)	9,047	243	(720)	8,570	253	(2,492)	6,331
Civilian Personnel Compensation	829,353	23,341	(15,518)	837,176	19,766	(95,212)	761,730	21,319	(189,813)	593,236
Travel	43,059	812	(15,184)	28,687	370	(3,727)	25,330	290	(4,633)	20,987
Material & Supplies - Commercial	79,825	2,217	(16,323)	65,719	1,972	(9,126)	58,565	1,757	(14,430)	45,892
Material & Supplies - from DBOF	577,223	73,423	(8,960)	641,686	(97,705)	36,443	580,424	54,989	(123,571)	511,842
Other Intrafund (DBOF) Purchases	156,476	11,313	(70,242)	97,547	(4,727)	(2,316)	90,504	2,310	(43,249)	49,565
Transportation	4,199	118	(2,424)	1,893	95	(688)	1,300	39	(381)	958
Capital Investment Depreciation	70,891	0	(21,500)	49,391	0	(4,431)	44,960	0	(8,819)	36,141
Other Purchases	219,094	6,135	60,644	285,873	8,576	860	295,309	8,859	(160,694)	143,474
Total Operating Budget *	1,992,440	117,599	(93,020)	2,017,019	(71,410)	(78,917)	1,866,692	89,816	(548,082)	1,408,426

*Includes Reimbursements

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DEFENSE BUSINESS OPERATIONS FUND
NAVAL AVIATION DEPOTS
CHANGES IN OPERATION
(DOLLARS IN MILLIONS)

	TOTAL COST
FY 1994 ACTUAL	$1,992.4
1. FY 1995 CONGRESSIONAL	$2,097.2
2. PRICING ADJUSTMENT	$4.7
A. PAY RAISE	
(1) FY 1995 LOCALITY PAY	4.7
3. PROGRAM CHANGES:	($109.3)
A. AIRFRAMES	44.8
B. ENGINES	6.3
C. MODIFICATIONS	(19.4)
D. COMPONENTS	(87.0)
E. ENGINEERING SERVICES	(53.8)
F. OTHER	(0.2)
4. OTHER CHANGES IN:	$24.4
A. BRAC COST	(16.8)
B. SEVERANCE PAY/SIP	7.2
C. DISRUPTION COSTS ASSOCIATED WITH CLOSURE	34.0
5. FY 1995 CURRENT ESTIMATE	$2,017.0

DEFENSE BUSINESS OPERATIONS FUND
NAVAL AVIATION DEPOTS
CHANGES IN OPERATION
(DOLLARS IN MILLIONS)

	TOTAL COST
1. FY 1995 CURRENT SUBMIT	$2,017.0
2. PRICING ADJUSTMENT	($71.4)
A. PAY RAISE	
(1) FY 1996 PAY RAISE	12.1
(2) ANNUALIZATION	7.7
B. STOCK FUND – FUEL	0.2
C. STOCK FUND – NONFUEL	(97.9)
D. IF PURCHASES	(4.7)
E. GENERAL PURCHASE INFLATION	11.0
F. MILITARY PERSONNEL	0.2
3 PROGRAM CHANGES	($18.8)
A. AIRFRAMES	(25.6)
B. ENGINES	(18.1)
C. MODIFICATIONS	3.0
D. COMPONENTS	40.5
E. ENGINEERING SERVICES	(2.9)
F. OTHER	(15.7)
4. OTHER CHANGES IN:	($60.1)
A. SEVERANCE PAY/SIP	(7.7)
B. BRAC COSTS	3.5
C. REDUCE INDIRECT/G&A EXPENSE AS CLOSURE PROCEEDS INCLUDING CLOSURE OF PENSACOLA	(55.9)
5. FY 1996 CURRENT ESTIMATE	$1,866.7

DEFENSE BUSINESS OPERATIONS FUND
NAVAL AVIATION DEPOTS
CHANGES IN OPERATION
(DOLLARS IN MILLIONS)

	TOTAL COST
1. FY 1996 CURRENT ESTIMATE	$1,866.7
2. PRICING ADJUSTMENT:	$89.8
A. PAY RAISE	
(1) FY 1997 PAY RAISE	14.3
(2) ANNUALIZATION	7.0
B. STOCK FUND – NONFUEL	55.0
C. IF PURCHASES	2.3
D. GENERAL PURCHASE INFLATION	10.9
E. MILITARY PERSONNEL	0.3
3. PROGRAM CHANGES:	($175.7)
A. AIRFRAMES	(39.2)
B. ENGINES	(54.1)
C. MODIFICATIONS	(18.3)
D. COMPONENTS	(35.3)
E. ENGINEERING SERVICES	0.7
F. OTHER	(29.5)
4. OTHER CHANGES IN:	($372.4)
A. BRAC COSTS	(140.7)
B. SEVERANCE PAY/SIP	(30.2)
C. ELIMINATION OF INDIRECT/G&A COST – CLOSURE OF ALAMEDA AND NORFOLK	(201.5)
5. FY 1997 CURRENT ESTIMATE	$1,408.4

DEFENSE BUSINESS OPERATIONS FUND
DEPARTMENT OF THE NAVY
NAVAL AVIATION DEPOTS

MATERIAL INVENTORY DATA
(Dollars in Millions))
FISCAL YEAR 1994

	Total	Mobilization	-------- Peacetime -------- Operating	Other
Materiel Inventory BOP	176.1	0.0	176.1	0.0
BOP Reclassification Changes	0.0	0.0	0.0	0.0
Price Changes	0.0	0.0	0.0	0.0
Receipts from Commercial Sources	633.1	0.0	633.1	0.0
Negotiated Purchase from Customers	0.0	0.0	0.0	0.0
Gross Sales	657.0	0.0	657.0	0.0
Materiel Inventory Adjustments				
CAPITALIZATIONS + OR (-)	0.0	0.0	0.0	0.0
RETURNS TO SUPPLIERS (-)	0.0	0.0	0.0	0.0
TRANSFERS TO PROP. DISP.(-)	0.0	0.0	0.0	0.0
ISSUES/RECEIPTS WITHOUT REIMBURSEMENT + or (-)	0.0	0.0	0.0	0.0
OTHER (list)	0.0	0.0	0.0	0.0
TOTAL ADJUSTMENTS	0.0	0.0	0.0	0.0
Materiel Inventory EOP	152.2	0.0	152.2	0.0
ECONOMIC RETENTION (memo)	0.0			
POLICY RETENTION (memo)	0.0			
POTENTIAL EXCESS (memo)	0.0			
Materiel Inventory on Order EOP (memo)	38.0	0.0	38.0	0.0

DEFENSE BUSINESS OPERATIONS FUND
DEPARTMENT OF THE NAVY
NAVAL AVIATION DEPOTS

MATERIAL INVENTORY DATA
(Dollars in Millions))
FISCAL YEAR 1995

			-------- Peacetime --------	
	Total	Mobilization	Operating	Other
Materiel Inventory BOP	152.2	0.0	152.2	0.0
BOP Reclassification Changes	0.0	0.0	0.0	0.0
Price Changes	0.0	0.0	0.0	0.0
Receipts from Commercial Sources	685.9	0.0	685.9	0.0
Negotiated Purchase from Customers	0.0	0.0	0.0	0.0
Gross Sales	707.4	0.0	707.4	0.0
Materiel Inventory Adjustments				
CAPITALIZATIONS + OR (-)	0.0	0.0	0.0	0.0
RETURNS TO SUPPLIERS (-)	0.0	0.0	0.0	0.0
TRANSFERS TO PROP. DISP.(-)	0.0	0.0	0.0	0.0
ISSUES/RECEIPTS WITHOUT REIMBURSEMENT + or (-)	0.0	0.0	0.0	0.0
OTHER (list)	0.0	0.0	0.0	0.0
TOTAL ADJUSTMENTS	0.0	0.0	0.0	0.0
Materiel Inventory EOP	130.7	0.0	130.7	0.0
ECONOMIC RETENTION (memo)	0.0			
POLICY RETENTION (memo)	0.0			
POTENTIAL EXCESS (memo)	0.0			
Materiel Inventory on Order EOP (memo)	32.7	0.0	32.7	0.0

DEFENSE BUSINESS OPERATIONS FUND
DEPARTMENT OF THE NAVY
NAVAL AVIATION DEPOTS

MATERIAL INVENTORY DATA
(Dollars in Millions))
FISCAL YEAR 1996

			-------- Peacetime --------	
	Total	Mobilization	Operating	Other
Materiel Inventory BOP	130.7	0.0	130.7	0.0
BOP Reclassification Changes	0.0	0.0	0.0	0.0
Price Changes	0.0	0.0	0.0	0.0
Receipts from Commercial Sources	579.9	0.0	579.9	0.0
Negotiated Purchase from Customers	0.0	0.0	0.0	0.0
Gross Sales	639.0	0.0	639.0	0.0
Materiel Inventory Adjustments				
CAPITALIZATIONS + OR (-)	0.0	0.0	0.0	0.0
RETURNS TO SUPPLIERS (-)	0.0	0.0	0.0	0.0
TRANSFERS TO PROP. DISP.(-)	0.0	0.0	0.0	0.0
ISSUES/RECEIPTS WITHOUT REIMBURSEMENT + or (-)	0.0	0.0	0.0	0.0
OTHER (list)	0.0	0.0	0.0	0.0
TOTAL ADJUSTMENTS	0.0	0.0	0.0	0.0
Materiel Inventory EOP	71.6	0.0	71.6	0.0
ECONOMIC RETENTION (memo)	0.0			
POLICY RETENTION (memo)	0.0			
POTENTIAL EXCESS (memo)	0.0			
Materiel Inventory on Order EOP (memo)	17.9	0.0	17.9	0.0

DEFENSE BUSINESS OPERATIONS FUND
DEPARTMENT OF THE NAVY
NAVAL AVIATION DEPOTS

MATERIAL INVENTORY DATA
(Dollars in Millions))
FISCAL YEAR 1997

			-------- Peacetime --------	
	Total	Mobilization	Operating	Other
Materiel Inventory BOP	71.6	0.0	71.6	0.0
BOP Reclassification Changes	0.0	0.0	0.0	0.0
Price Changes	0.0	0.0	0.0	0.0
Receipts from Commercial Sources	557.0	0.0	557.0	0.0
Negotiated Purchase from Customers	0.0	0.0	0.0	0.0
Gross Sales	557.7	0.0	557.7	0.0
Materiel Inventory Adjustments				
CAPITALIZATIONS + OR (-)	0.0	0.0	0.0	0.0
RETURNS TO SUPPLIERS (-)	0.0	0.0	0.0	0.0
TRANSFERS TO PROP. DISP.(-)	0.0	0.0	0.0	0.0
ISSUES/RECEIPTS WITHOUT REIMBURSEMENT + or (-)	0.0	0.0	0.0	0.0
OTHER (list)	0.0	0.0	0.0	0.0
TOTAL ADJUSTMENTS	0.0	0.0	0.0	0.0
Materiel Inventory EOP	70.9	0.0	70.9	0.0
ECONOMIC RETENTION (memo)	0.0			
POLICY RETENTION (memo)	0.0			
POTENTIAL EXCESS (memo)	0.0			
Materiel Inventory on Order EOP (memo)	17.7	0.0	17.7	0.0

CAPITAL BUDGET SUMMARY
DEPARTMENT OF THE NAVY
DEPOT MAINTENANCE-AVIATION DEPOTS
($ IN MILLIONS)

LINE #	ITEM DESCRIPTION	FY 1994		FY 1995		FY 1996		FY 1997	
		Qty	Actual Obligns	Qty	Total Cost	Qty	Total Cost	Qty	Total Cost
	GRAND TOTAL NON-ADP CAPITAL PURCHASES PROGRAM		8.435		5.666		19.481		35.410
	GRAND TOTAL ADP CAPITAL PURCHASES PROGRAM		3.229		4.193		3.364		1.275
	Department of the Navy ADP Capital Purchases Program- Submit		1.002		4.193		3.364		1.275
	Joint Logistics Systems Center - Submit		2.227						
	GRAND TOTAL CAPITAL PURCHASES PROGRAM		11.664		9.859		22.845		36.685

000171

CAPITAL BUDGET SUMMARY
NON-ADP PROGRAM-SUBMIT
DEPARTMENT OF THE NAVY
DEPOT MAINTENANCE-AVIATION DEPOTS
($ IN MILLIONS)

LINE #		ITEM DESCRIPTION	FY 1994		FY 1995		FY 1996		FY 1997	
			Qty	Actual Obligns	Qty	Total Cost	Qty	Total Cost	Qty	Total Cost
		1A. NON-ADP EQUIPMENT ($500,000 and Over)								
		A. Replacement								
F EL 0002A	R	HYDROFORMING MACHINE	1	2.791						
N EL 0000	R	CORPORATE ASKARS UPGRADE			1	1.859	1	2.140		
E EL 00016A	R	5-AXIS MACHINING CENTER					1	1.650		
E EL 00024A	R	TEST COMPUTER AND INSTRUMENTATION					1	1.000		
F EL 0001R	R	FUEL METERING UNIT TEST STAND								1.000
		Subtotal - Replacement		2.791		1.859		4.790		1.000
		B. Productivity								
F EL 0004B	P	HIGH PRESSURE COMPRESSED AIR STORAGE SYSTEM			1	1.200				
		Subtotal - Productivity				1.200		0.000		
		C. New Mission								
N EL 000X	N	CASS STATION EQUIPMENT					4	5.090	14	27.773
		Subtotal - New Mission						5.090		27.773
		SUBTOTAL - NON-ADP EQUIPMENT ($500,000 and Over)		2.791		3.059		9.880		28.773
N ES 0000		1B. TOTAL NON-ADP EQUIPMENT (Less than $500,000)		2.750		0.462		5.762		3.424
		2. GRAND TOTAL NON-ADP EQUIPMENT		5.541		3.521		15.642		32.197
N MC 0000		3. TOTAL MINOR CONSTRUCTION ($300,000 and Less)		2.894		2.145		3.839		3.213
		GRAND TOTAL NON-ADP CAPITAL PURCHASES PROGRAM		8.435		5.666		19.481		35.410

000122

CAPITAL BUDGET SUMMARY
ADP PROGRAM - SUBMIT
DEPARTMENT OF THE NAVY
DEPOT MAINTENANCE - AVIATION DEPOTS
($ IN MILLIONS)

LINE #		ITEM DESCRIPTION	FY 1994		FY 1995		FY 1996		FY 1997	
			Qty	Actual Obligns	Qty	Total Cost	Qty	Total Cost	Qty	Total Cost
		1A. ADP & TELECOMMUNICATIONS EQUIPMENT ($100,000 and Over)								
		A. Replacement								
F KL 021A	R	610/640 SYSTEM	1	0.358						
E KL 4003	R	MULTI-USER COMPUTER SYSTEM	1	0.227	1	0.029				
E KL 4004	R	FILE SERVER SYSTEM	1	0.065	1	0.060				
F KL 013A	R	TELEPHONE SYSTEM UPGRADE			1	1.500				
		Subtotal - Replacement		0.650		1.589		0.000		0.000
		B. Productivity								
N KL 0000J	P	DEPOT MAINTENANCE STANDARD SYSTEM (DMSS) ADPE EQUIPMENT			3	1.859	1	0.834	1	0.700
C KL 00253B	P	DESKTOP PUBLISHING SYSTEM			1	0.375				
F KL 001B	P	INFORMATION SUBSCRIPTION SYSTEM			1	0.283				
C KL 00285B	P	SDAE/ASKARS TANDEM					1	0.700		
C KL 00284B	P	VAX1 REPLACEMENT					1	0.450		
C SL 00292B	P	RELATION DATABASE SOFTWARE					1	0.250		
C KL 00333B	P	UNIX OPEN SERVER							1	0.475
C KL 00299B	P	ROHR TANDEM UPGRADE							1	0.100
		Subtotal - Productivity		0.000		2.517		2.234		1.275
		C. New Mission								
E KL 3001	N	NETWORKED CD-ROM SYSTEM	1	0.327						
E KL 5001	N	EDMICS					1	0.717		
C KL 00288C	N	DEFENSE MESSAGE SYSTEM UPGRADE					1	0.200		
E KL 00013	N	COMPUTER SYSTEM UPGRADE					1	0.114		
		Subtotal - New Mission		0.327		0.000		1.031		0.000
		SUBTOTAL ADP & TELECOMMUNICATIONS EQUIPMENT ($100,000 and Over)		0.977		4.106		3.265		1.275
N KT 0000		1B. ADP & TELECOMMUNICATIONS EQUIPMENT (Less than $100,000) Replacement/Productivity/New Mission		0.025		0.087		0.099		0.000
		2. GRAND TOTAL ADP CAPITAL PURCHASES PROGRAM		1.002		4.193		3.364		1.275

000173

CAPITAL BUDGET SUMMARY
JOINT LOGISTICS SYSTEMS CENTER - SUBMIT
DEPARTMENT OF THE NAVY
DEPOT MAINTENANCE - AVIATION DEPOTS
($ IN MILLIONS)

LINE #	ITEM DESCRIPTION	FY 1994		FY 1995		FY 1996		FY 1997	
		Qty	Actual Obligns	Qty	Total Cost	Qty	Total Cost	Qty	Total Cost
	1A. ADP & TELECOMMUNICATIONS EQUIPMENT ($100,000 and Over)								
	B. Productivity								
E KL 4001 P	ENGINEERING CAD/CAM SYSTEM, PHASE I	1	0.427						
	Subtotal - Productivity		0.427						
	C. New Mission								
C KL 00227C N	EDMICS	1	1.800						
	Subtotal - New Mission		1.800						
	SUBTOTAL ADP & TELECOMMUNICATIONS EQUIPMENT ($100,000 and Over)		2.227						
	1B. ADP & TELECOMMUNICATIONS EQUIPMENT (Less than $100,000) Replacement/Productivity/New Mission		0.000						
	2. GRAND TOTAL ADP CAPITAL PURCHASES PROGRAM		2.227		0.000		0.000		0.000

000174

CAPITAL PURCHASES JUSTIFICATION
(Dollars in Thousands)

A. FY 1996/1997 BIENNIAL BUDGET

B. Component/Business Area/Date
Navy/Depot Maintenance/Aviation Depot/

C. Line No. & Item Description
NEL0000R CORPORATE ASKARS UPGRADE

D. Activity Identification

ELEMENTS OF COST	FY 1995 QUANT	FY 1995 UNIT COST	FY 1995 TOTAL COST	FY 1996 QUANT	FY 1996 UNIT COST	FY 1996 TOTAL COST	FY 1997 QUANT	FY 1997 UNIT COST	FY 1997 TOTAL COST
FEL0003AR CHERRY POINT				1	2,140	2,140			
EEL4001AR JACKSONVILLE	1	1,859	1,859						
TOTAL	1	1,859	1,859	1	2,140	2,140			

Justification:

This project is part of the NADEP Corporate ASKARS Upgrade project which proposes to purchase and install upgraded hardware, software, and material handling systems with respect to storage, kitting, and retrieval of Ready For Issue (RFI) aircraft parts and F/E components for the purpose of preventing a long term production work stoppage caused by the failure of nonavailable obsolete parts which is no longer supported by the manufacturers. The Askars system is utilized to provide a Just In Time (JIT) management and delivery system for aircraft parts concurrently removed and reworked during standard depot level maintenance (SDLM), Airframe change kit incorporation during SDLM and aircraft parts manufactured to support modifications. The Askars is critical to minimize production floor space requirements and reduce cycle time. The Askars upgrade, in addition to beirlg required to resolve serious Askars reliability and maintainability problems, is necessary to support DOD mandated integration of modern business practices into depot production. The Askars is part of the NADEP long range strategic plan to incorporate manufacturing resource planning 2 critical path modeling, just in time delivery into the production process. It is essential to the success of the changing production processes, reductions in turn around time and costs; and to accomodate an increase in the variety of airframes undergoing SDLM at NADEP Jacksonville and a significant increase in manufacturing and modification workload.

Anticipated benefits from the execution of this project are an increase in depot productivity by decreasing system downtime due to maintenance and increased reliability in inventory levels. The ASKARS Project Managers Office has estimated that system support costs will increase to $1,500,000 per year should the Corporate Upgrade not be executed.

A Cost Benefit Analysis has been performed for the review of economic indicators. Expecting to be operational in FY 1996 and FY 1997.

000175

CAPITAL PURCHASES JUSTIFICATION
(Dollars in Thousands)

A. FY 1996/1997 BIENNIAL BUDGET

B. Component/Business Area
Navy/Depot Maintenance/Aviation Depot

C. Line No. & Item Description
EEL00016AR 5-AXIS MACHINING CENTER

D. Activity Identification
JACKSONVILLE

ELEMENTS OF COST	FY 1996 QUANTI	FY 1996 UNIT COST	FY 1996 TOTAL COST	FY 1997 QUANTI	FY 1997 UNIT COST	FY 1997 TOTAL COST									
										1	1,650	1,650			

Justification

The existing machines assigned to the NADEP JAX Mills and CNC (Computer Numerical Control) Machine Shop, 96412, were manufactured in 1982 and will be 14 years old in FY 1996. They are both producing parts continuously on first shift with some second shift work. The machines are nearing their anticipated useful life and many of the electronic and computer components have already exceeded the anticipated useful life of ten years. Vendors do not store parts for systems this old. The 5 Axis Machining Center, in addition to resolving serious reliability and maintainability problems, is necessary to support long range high technology electronic data interchange initiatives. It is part of NADEP Jacksonville long range strategic plan to incorporate manufacturing modernization into the production processes. It is essential to reductions in turn around time and costs; and to accomodate a significant increase in manufacturing and weapons systems component repair.

When replacement parts are needed, they have to be manufactured. Mechanical parts are also showing signs of major wear. If replacement is not considered, the machines will be subject to major downtime, need major repairs and replacement of most electronic/computer systems. The new 5-axis machining centers would have state-of-the-art microprocessors and all new electronic and mechanical components, thereby eliminating machine downtime while replacement parts are being manufactured. The higher spindle speeds and more equipment horsepower will result in slightly faster production operations.

A Cost Benefit Analysis was performed with an: Average Annual Savings: $40,918 starting in Oct 97 Pay Back Period: +10 years Rate of return: 2.5%

000176

CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)													A. FY 1996/1997 BIENNIAL BUDGET		
B. Component/Business Area Navy/Depot Maintenance/Aviation Depot				C. Line No. & Item Description EEL00024AR TEST COMPUTER AND INSTRUMENTATION									D. Activity Identification JACKSONVILLE		
										FY 1996			FY 1997		
ELEMENTS OF COST	QUANT	UNIT COST	TOTAL COST	QUANT	UNIT COST	TOTAL COST	QUANT	UNIT COST	TOTAL COST	QUANT	UNIT COST	TOTAL COST	QUANT	UNIT COST	TOTAL COST
										1	1,000	1,000			

Justification:

The present system located in the NADEP Engine Test Shop, 96105, is no longer produced and is decreasingly supported by the manufacturer (Hewlett Packard). Parts for the system now have to be purchased as used parts from a third party vendor.

The system is used for data acquisition and control during jet engine testing. A modern system using the newest technology will enable NADEP to support the test cell in the future. The benefits are reliability, supportability and readily available replacement parts which will minimize test cell downtime and maximize test cell availability for production operations. A new system will also improve the process of troubleshooting engines by providing more detailed information to engine program engineers.

A Cost Benefit Analysis was performed with an: Average Annual Savings: $108,662 starting in Sep 1997 Pay Back Period: 8.7 years Rate of return: 10.9%

000277

CAPITAL PURCHASES JUSTIFICATION
(Dollars in Thousands)

A. FY 1996/1997 BIENNIAL BUDGET

B. Component/Business Area/Date	C. Line No. & Item Description	D. Activity Identification
Navy/Depot Maintenance/Aviation Depot/	FEL0001RR FUEL METERING UNIT TEST STAND	CHERRY POINT

													FY 1997		
ELEMENTS OF COST	QUANT	UNIT COST	TOTAL COST	QUANT	UNIT COST	TOTAL COST	QUANT	UNIT COST	TOTAL COST	QUANT	UNIT COST	TOTAL COST	QUANT	UNIT COST	TOTAL COST
													1	1,000	1,000

Justification:

The Fuel Metering Unit (FMU) Test Stand is necessary to support conversion of the existing AV-8B Harrier F-406 engines to F-408 engines. The FMU on each engine is substantially different, and requires specialized facilitazation. The AV-8B is a core weapon system, and Naval Avition Depot (NADEP) Cherry Point has it as an element of its strategic plan, to continue and improve its depot level support.

NADEP Cherry Point is the U.S. NAVY Designated Overhaul Point (DOP) for the overhaul and testing of F402-406/408 engine accessories, one of which is the FMU. To perform this workload, a test stand capable of performing the required tests will have to be procured.

The test stand will be procured to provide test capability for the 408 FMU in particular, since the depot currently has no capability to perform the test. Also, the test stand will augment the depot's capability to test the 406 FMU, which can be tested on an existing test stand. However, that test stand is very unreliable. It requires a great deal of engineering and maintenance support to keep the stand running. The problems are complicated by the fact that Dowty, a United Kingdom company, provided the stands, and therefore the stands are in an unfamiliar British configuration. By procuring a new stand, the depot will have the capability to test the 408 FMU and lessen the burden on the current 406 FMU, which should also reduce the amount of maintenance expended on the 406 FMU test stand.

The purpose of this project is to provide the Accessories Branch with the capability to test the 408 FMU, to enhance and increase the productivity of the existing 406 FMU testing process, and to reduce direct and indirect labor and material costs associated with testing of hydraulic components and accessories.

The Cost Benefit Analysis has been performed with an: Average annual savings: $326,553 starting in FY 98 Payback period: 2.3 years Rate of Return: 33%

000178

CAPITAL PURCHASES JUSTIFICATION
(Dollars in Thousands)

A. FY 1996/1997 BIENNIAL BUDGET

B. Component/Business Area
Navy/Depot Maintenance/Aviation Depot

C. Line No. & Item Description
NEL000XN CASS STATION EQUIPMENT

D. Activity Identification

ELEMENTS OF COST	FY 1996 QUANT	FY 1996 UNIT COST	FY 1996 TOTAL COST	FY 1997 QUANT	FY 1997 UNIT COST	FY 1997 TOTAL COST
FEL0000XN CHERRY POINT	1	1,101	1,101	4	VAR	8,518
EEL0000XN JACKSONVILLE				2	VAR	5,602
CEL0000XN NORTH ISLAND	3	VAR	3,989	8	VAR	13,653
TOTAL	4	VAR	5,090	14	VAR	27,773

Justification

This request results from the design and development of modularly constructed Automated Test Equipment (ATE). The development program was executed in response to fleet concerns regarding serious deficiencies in existing ATE and recommendations of an extensive 1976 SECNAV study on test equipment. The CASS program is part of the Navy's long range plan to replace existing aging testers. Depot Level support for the F/A-18, F-14, S-3B, and P-3, as well as core avionics, is planned for NADEPs utilizing CASS. Many of the avionics systems scheduled for CASS are new development programs sets developed only for CASS. There are no alternative means of support. Without CASS stations at the NADEPs avionics component workload and aircraft SDLM concurrent repair will not be executable significantly impacting readiness and pipeline assets. The Consolidated Automated Support System (CASS) design incorporate easily reconfigurable modules which can address varying test requirements (e.g. electro-optical, radio frequency, laser, infrared, inertial guidance, etc.) and will also allow modification to meet the demands of future technologies.

CASS is the Navy's latest state-of-the-art avionics automated test equipment to be used to test present and future complex weapons system. CASS will eventually replace the existing testers which includes both common and peculiar ATE. Common ATE has the capability to test electronic assemblies from many different weapon systems, while peculiar ATE tests only one weapon system. CASS represents an approach to testing which consolidates the numbers and types of testers used to implement electronics support. CASS has a standard, yet open-ended system architecture that uses a set of standard test modules from which different configurations are composed to meet specific user test requirements. Only the number of test modules and their collective packaging change to adapt to different user needs. Utilizing the CASS architecture, low-level modules, and a distributed computing systems, it is possible to produce CASS configurations optimized to the particular application. These can range from multiple rack-mounted configurations. All share common assets and software and allow Test Program Set transportability. The four rack-mount configurations include a hybrid tester, RF configuration, Electro Optic configuration and communication/navigation/identification (CNI) configuration.

The CASS program will increase weapon system material readiness, reduce life cycle costs through standardization, improve tester sustainability at depot and intermediate maintenance levels, and provide Navy-wide test capability for existing and future avionics systems. CASS will increase repair facility throughput capability, reduce spare parts and personnel training requirements, and significantly reduce the space required for avionics testing aboard space critical aircraft carriers.

000179

CAPITAL PURCHASES JUSTIFICATION
(Dollars in Thousands)

A. FY 1996/1997 BIENNIAL BUDGET

B. Component/Business Area
Navy/Depot Maintenance/Aviation Depot

C. Line No. & Item Description
NES0000 TOTAL NON-ADP EQUIPMENT (Less than $500,000)

D. Activity Identification

ELEMENTS OF COST	FY 1996 QUANT	FY 1996 UNIT COST	FY 1996 TOTAL COST	FY 1997 QUANT	FY 1997 UNIT COST	FY 1997 TOTAL COST
CHERRY POINT			1,069			1,294
JACKSONVILLE			2,775			650
NORTH ISLAND			1,918			1,460
TOTAL			5,762			3,424

Justification:

See Attached Project Listing.

CAPITAL PURCHASES JUSTIFICATION
NAVAL AVIATION DEPOTS
ATTACHMENT FOR 9B EXHIBIT
NES0000 NON-ADP EQUIPMENT (Less than $500,000)
($ IN THOUSANDS)

LINE #		DESCRIPTION	FY 1996	FY 1997
F ES 0000	N	Capital Equipment Installation Costs	408	394
F ES C008C	N	Pack Aluminide Process Equipment	336	
F ES L012B	P	Automated Work In Process Storage and Retrieval System	250	
F ES A013A	R	Surface Grinder Replacement	75	
F ES 0000	R	Miscellaneous Capital Equipment $50K to $500K		350
F ES D009C	N	Hydraulic Motor Starter Test Stand		250
F ES 000XA	R	Test Cell Six Modernization		150
F ES 00XXA	R	Test Cell One Upgrade		150
		CHERRY PT NON-ADP EQUIPMENT	**1,069**	**1,294**
E ES 00025A	R	Laser Wire Marker	487	
E ES 00019A	R	Workstands for P-3, HGR 868	450	
E ES 00004C	N	Optical Stabilizer Mini Console	360	
E ES 000S	N	Miscellaneous Capital Equipment $25K to $50K	358	
E ES 000S	N	In-House Installations	285	200
E ES 00008AE	R	Bearing Cleaning Line	260	
E ES 00017C	N	Thermal Spray System	250	
E ES 00015E	R	IPA Vapor Dryer	175	
E ES 00026	R	Magnetic Particle Inspection	150	
E ES 00021C	N	Antenna Analyzer		400
E ES 00011	R	Pulse Generating System		50
		JAXV NON-ADP EQUIPMENT	**2,775**	**650**
C ES 00289A	R	Vertical Machining Center - 200"	465	
C ES 00291A	R	Equip Installations	389	
C ES 00290A	R	$50K-$500K Equipment	300	
C ES 00286A	R	Small Vertical Grinder	288	
C ES 00274A	R	Vertical Machining Center - 75"	235	
C ES 00294A	R	Vector Network Analy	140	
C ES 00287A	R	IPA Clean/Degr Sys	101	
C ES 00303A	R	CNC Lathe - 18"		489
C ES 00304A	R	Large Vertical Grinder		460
C ES 00305A	R	Large CNC Cylindrical Grinder		345
C ES 00306A	R	$50K-$500K Equipment		100
C ES 00307A	R	Equip Installations		86
		NORTH IL NON-ADP EQUIPMENT	**1,918**	**1,480**

CAPITAL PURCHASES JUSTIFICATION
(Dollars in Thousands)

A. FY 1996/1997 BIENNIAL BUDGET

B. Component/Business Area
Navy/Depot Maintenance/Aviation Depot

C. Line No. & Item Description
NMC0000 TOTAL MINOR CONSTRUCTION ($300,000 and Less)

D. Activity Identification

ELEMENTS OF COST	FY 1996 QUANT	FY 1996 UNIT COST	FY 1996 TOTAL COST	FY 1997 QUANT	FY 1997 UNIT COST	FY 1997 TOTAL COST
CHERRY POINT			1,405			1,600
JACKSONVILLE			1,646			776
NORTH ISLAND			788			837
TOTAL			3,839			3,213

Justification:

See Attached Project Listing.

000182

CAPITAL PURCHASES JUSTIFICATION
NAVAL AVIATION DEPOTS
ATTACHMENT FOR 9B EXHIBIT
NMC0000 MINOR CONSTRUCTION ($300,000 and Less)
($ IN THOUSANDS)

LINE #	DESCRIPTION	FY 1996	FY 1997
F MC CE19-93	Construct PACK Process Areas, B4225	211	
F MC CR53-94	Alt/Rep to Makeup and Exhaust Air Syst, B4035	175	
F MC C40-93	Construct Stairway and Catwalks, B4225	170	
F MC C29-93	Construct Paint Booth Drying Room, B1798	163	
F MC C73-94	Alterations to Aircraft Cleaning Facility, B4187	150	
F MC CE63-93A	Upgrade of Electrical Util, B4172	140	
F MC C52-94	Alt for Access Staging, Plating Shop, B4035	106	
F MC C32-91A	Construct Extension to Haz/Waste Shelter	100	
F MC C45-94	Alterations to Roll Up Doors, B133	90	
F MC C69-94	Construct Lightning Arrestor Sys, Mezz. F, B137	50	
F MC C57-94	Alter to Dust Collectors For PMB, Shop 93111, B137	50	
F MC C90-93	Alterations for HVAC, Shop 94403, B137		250
F MC EC36-94	Install & Alt to In-House Hydraulic Sys, B137		200
F MC C36-92	Alterations to Chilled Water System, B188		190
F MC CR63-90	Alterations/Repairs Pneumatics Branch Shops, B137		180
F MC C20-91	Pave Parking Area Adjacent to B4032		180
F MC CR47-90	Alt/w Rprs to Security Perimeter Fence		135
F MC RC75-94	Repairs & Alterations to HVAC, B163		100
F MC CR06-92	Const Storm Drain/Repr Asphalt - Taylor/Harrison Drive		100
F MC RC07-95	Repairs & Alterations to Exits & Emergency Lights		55
F MC CR48-94	Alt/Rep to Admin. Areas, Front Office Area, B137		55
F MC CR25-93	Alterations and Repairs to Lobby, B133		55
F MC C29-91	Construct Miscellaneous Sidewalks		50
F MC C87-93	Construction of 65600 Storage Facility		50
	CHERRY PT MINOR CONSTRUCTION	**1,405**	**1,600**
E MC 000S	Miscellaneous Small Jobs	366	300
E MC 00007	Repair and Alter Component Paint Shop, B101	300	
E MC 00005	Alter and Repair Bearing Shop, B101	300	
E MC 00022	Support Equipment Warehouse	300	
E MC 000S	In-House Construction	230	200
E MC 00003	Bulk LN2 Tank/Distribution System, B101U	150	
E MC 00018	Flat Cable Shop Expansion		276
	JAXV MINOR CONSTRUCTION	**1,646**	**776**
C MC 00281A	Misc Mod Proj 50-500K	438	
C MC 00295A	Modernize Lighting	200	
C MC 00282A	Gen Test Stand Facility	150	
C MC 00276A	Install Electrical Substation		250
C MC 00301A	Install Electrical Substation		250
C MC 00278A	Construct Fire Wall		200
C MC 00297A	Misc Mod Proj 50-300K		137
	NORTH IL MINOR CONSTRUCTION	**788**	**837**

CAPITAL PURCHASES JUSTIFICATION
(Dollars in Thousands)

A. FY 1996/1997 BIENNIAL BUDGET

B. Component/Business Area
Navy/Depot Maintenance/Aviation Depot

C. Line No. & Item Description
DEPOT MAINTENANCE STANDARD SYSTEM (DMSS) ADPE EQUIPMENT

D. Activity Identification

ELEMENTS OF COST	FY 1995 QUANT	FY 1995 UNIT COST	FY 1995 TOTAL COST	FY 1996 QUANT	FY 1996 UNIT COST	FY 1996 TOTAL COST	FY 1997 QUANT	FY 1997 UNIT COST	FY 1997 TOTAL COST
HARDWARE:MID TIER/USER LEVEL									
FKL0000JP CHERRY POINT	1	VAR	205				1	VAR	700
EKL0000JP JACKSONVILLE	1	VAR	1,478						
CKL0000JP NORTH ISLAND	1	VAR	176	1	834	834			
TOTAL	3	VAR	1,859	1	VAR	834	1	VAR	700

Justification:

These funds are to support the fielding of the Depot Maintenance Standard System (DMSS) being developed by the Joint Logistics Systems Center to NADEP maintenance depots. During the recent budget review, the responsibility for acquisition of hardware was transferred from the JLSC to the Military Services.

The Depot Maintenance Standard System (DMSS) was created in response to the DoD initiative to standardize logistics systems across DoD and the Military Services' related need for a more capable information systems technical infrastructure in their depots. Over the past two years, the Joint Logistics Systems Center (JLSC), working with the Services, has evaluated the business processes of the depots, investigated alternative maintenance management concepts and reviewed the Services' legacy environment, depot AIS development efforts and commercially available systems. These efforts have sustained the need to modernize the platforms and hardware represented by this submittal.

DMSS will provide the Services a revolutionary step forward in functional capability and automation, including a systems infrastructure upon which to make significant strides in business process improvement. Benefits will be realized in two primary areas: business performance and information systems costs. Business performance will be enhanced through the process improvements delivered by DMSS applications to support the Depot Maintenance Improved Functional Baseline (IFB). These improvements include: Reduced inventories through improved planning and tracking; reduced labor through better resource and work planning; reduced overhead through automation and the elimination of non value-added activity; shorter cycle times through better planning and management information to control operations; improved schedule performance through more complete asset visibility; once implementation is complete and legacy applications are reduced or eliminated, ADP costs will come down markedly.

Without this investment, needed improvements to the depot business process and infrastructure will not be achieved. Implementing enhanced repair and overhaul capabilities is a critical contribution toward improving mission readiness in a downsizing environment. As the DoD weapon systems continue to age, reductions to the workforce continue and the number of depots are reduced, efficient and effective organic repair capability is of increasingly growing importance to DoD in maintaining weapon systems combat readiness. In order to meet this demand, the depot community needs to dramatically strengthen its business processes and the associated information infrastructure (hardware).

000184

CAPITAL PURCHASES JUSTIFICATION
(Dollars in Thousands)

A. FY 1996/1997 BIENNIAL BUDGET

B. Component/Business Area/Date
Navy/Depot Maintenance/Aviation Depot/

C. Line No. & Item Description
CKL00285BP SDAE/ASKARS TANDEM

D. Activity Identification
NORTH ISLAND

ELEMENTS OF COST	FY 1996 QUANT	FY 1996 UNIT COST	FY 1996 TOTAL COST	FY 1997 QUANT	FY 1997 UNIT COST	FY 1997 TOTAL COST
	1	700	700			

Justification:

Naval Aviation Depot North Islands long range plan is to replace older equipment which is large, requires a large amount of floor space, contains multiple processors, consumes large amounts of energy to operate, and requires a large support staff. Replacement will be by state-of-the-art computer with more and faster capabilities, fewer processors, much smaller floor space requirements, substantial reduction in energy consumption, and reduced support staff.

The purpose of this items is to replace the existing corporate Tandem TXP system with the newer CLX-R system. The CLX-R model is faster, requires less maintenance, lower utilities costs, and has a smaller footprint.

The existing Tandem Model TXP system is obsolete. Cost of software and hardware is increasing. Failure rate of equipment is more frequent.

Replacement of Tandem system would reduce software and hardware maintenance costs, has less electrical power consumption, and requires less computer room floor space. The system will be capable of providing information from an OPEN system environment.

System downtime will be more frequent if equipment if not acquired. The system downtime will impact MCAPP, ASKARS and SPLICE users supporting the aircraft and components program at the NADEP.

A Cost Benefit Analysis has been performed with an: Average Annual Savings: $168,201 starting in June 96 Payback Period: 3.9 years Rate of Return: 24.0%

000185

CAPITAL PURCHASES JUSTIFICATION
(Dollars in Thousands)

A. FY 1996/1997 BIENNIAL BUDGET

B. Component/Business Area/Date
Navy/Depot Maintenance/Aviation Depot/

C. Line No. & Item Description
CKL00284BP VAX 1 REPLACEMENT

D. Activity Identification
NORTH ISLAND

ELEMENTS OF COST	FY 1996 QUANT	FY 1996 UNIT COST	FY 1996 TOTAL COST	FY 1997 QUANT	FY 1997 UNIT COST	FY 1997 TOTAL COST
	1	450	450			

Justification:

The replacement computer system will support 256 users, has 128 mega bytes of memory, provide 2-3 second response time, has 20 giga bytes of disk space, and CPU speeds of 100 MIPS (Million Instructions per Second). This will provide excellent support for existing Information Resource Management requirements and any future requirements that may be needed.

The VAX1 Digital Equipment Corporation 11/780 computer system is obsolete and cannot provide adequate system resources for modern application software. It cannot meet increased demand for Relational database capability. It represent obsolete technology and is extremely slow. Application speeds are virtually unusable. Because of the age of the systems, hardware maintenance is becoming increasingly more difficult and costly and downtimes are increasing. Because of the old technology, facilities costs are high.

Replacing this system will provide existing applications with the latest hardware and operating system technology. Applications will be fully provided for in terms of performance capacity. Open System capability such as UNIX operating system, NFS disk/file sharing, TCP/IP communications and networking protocol will be provided as part of the system. Maintenance and facilities costs will be significantly lowered.

The 11/780 (VAX1) represents obsolete technology. It will continue to require high maintenance and facility costs and their downtimes will continue to increase if equipment is not acquired. The slow performance will continue to make it cost prohibitive rather than cost beneficial.

A Cost Benefit Analysis has been performed with an: Average Annual Savings: $129,869 starting in NOV 97 Payback Period: 3.2 years Rate of Return: 28.9%

000186

CAPITAL PURCHASES JUSTIFICATION
(Dollars in Thousands)

A. FY 1996/1997 BIENNIAL BUDGET

B. Component/Business Area/Date
Navy/Depot Maintenance/Aviation Depot/

C. Line No. & Item Description
CSL00292BP RELATION DATABASE SOFTWARE

D. Activity Identification
NORTH ISLAND

ELEMENTS OF COST	FY 1996 QUANT	FY 1996 UNIT COST	FY 1996 TOTAL COST	FY 1997 QUANT	FY 1997 UNIT COST	FY 1997 TOTAL COST
	1	250	250			

Justification:

This is an off-the-shelf, commercially available, industry proven relational database software package. The purpose of the software is to provide an open (multi-platform compatibility), easy-to-use means of accessing NADEP business sensitive information. This software will work across the varied computing platform of the NADEP and provide a same like/feel and compatibility for data/information storage and retrieval.

Currently we have a mixture of unrelated off-the-shelf database software packages. They cover platforms that range from desk top personal computers to large computer mainframes. The lack of an easy data interface/exchange and a pool of knowledgeable experts on each environment is causing considerable effort to be exerted on the part of NADEP personnel to integrate data/information for our rapidly changing information environment. Our data/information requirements are becoming more and more complex. We can not quickly respond to information calls if we have to constantly build bridges to link data from one system to another.

Benefits consist of the following: reduced turn-around-time (TAT) between requesting data and receiving information, increased data accuracy, improved security, extending the life and availability of in-house technical knowledge/expertise, enhancement of the NADEP's competitive edge and an increase in data availability.

If the database software is not acquired there is a greater risk of providing inaccurate information about the NADEP to people that are making decisions about workload, finances, personnel levels, and other important areas that affect the entire NADEP. The information contained in our data bases are crucial to the viability of the NADEP and the ability of the command to be seen as a competitive component of the Depot Maintenance arena.

A Cost Benefit Analysis has been performed with an: Average Annual Savings: $99,858 starting in Jun 96 Payback Period: 2.2 years Rate of Return: 39.9%

000187

CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)												A. FY 1996/1997 BIENNIAL BUDGET		
B. Component/Business Area/Date Navy/Depot Maintenance/Aviation Depot/				C. Line No. & Item Description CKL0333BP UNIX OPEN SERVER								D. Activity Identification NORTH ISLAND		
							FY 1996					FY 1997		
ELEMENTS OF COST	QUANT	UNIT COST	TOTAL COST	QUANT	UNIT COST	TOTAL COST	QUANT	UNIT COST	TOTAL COST	QUANT	UNIT COST	TOTAL COST	QUANT	UNIT COST	TOTAL COST
													1	475	475

Justification:

Two existing Digital Equipment Corporation (DEC) VAX 11/780 computer systems are obsolete and can no longer adequately meet current user requirements. The systems cannot provide adequate system resources for advances in application software and they cannot meet increased demand for Open System capability. They represent obsolete technology and are extremely slow. Application speeds are virtually unusable. Because of the age of the systems, hardware maintenance is becoming increasingly more difficult and costly and downtimes are increasing. Also, because of the old technology, facilities costs are high.

The DEC 7000 AXP server has the capability to run several different operating systems including the UNIX open system. Its memory and CPU performance can be increased "modularly" as NADEP computing demands increase. This provides investment protection as well as excellent performance. The DEC 7000 hardware can have as many as 6 processor boards and a huge data input/output (I/O) capability. This allows it to service all of the existing applications as well as any future applications.

A Cost Benefit Analysis has been performed with an: Average annual savings: $129,869 starting FY-97 Payback: 3.4 Years Rate of return: 27.3%

000188

CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)													A. FY 1996/1997 BIENNIAL BUDGET		
B. Component/Business Area/Date Navy/Depot Maintenance/Aviation Depot/				C. Line No. & Item Description CKL00299BP ROHR TANDEM UPGRADE									D. Activity Identification NORTH ISLAND		
										FY 1996			FY 1997		
ELEMENTS OF COST	QUANTI	UNIT COST	TOTAL COST	QUANTI	UNIT COST	TOTAL COST	QUANTI	UNIT COST	TOTAL COST	QUANTI	UNIT COST	TOTAL COST	QUANTI	UNIT COST	TOTAL COST
													1	100	100

Justification:

Upgrade of the Tandem Model CLX-R is to increase Tandem capacity in support of the ROHR stacker system. Increase Tandem system memory and disk storage to support integration of the ROHR stacker and the NADEP material handling system.

The Tandem Model CLX-R system supporting material handling functions does not have sufficient capacity to support the integration of the ROHR stacker system.

Benefits include reduced costs by consolidating the use of the Tandem system to include supporting the ROHR stacker system. Significant benefits also includes the system capability to provide information from an OPEN system environment.

If upgrade is not acquired, current material handling system performance will be degraded and users will experience slower response time. The upgrade is needed to support the integration of the ROHR stacker system with the current material handling system.

A Cost Benefit Analysis has been performed with an: Average Annual Savings: $36,775 starting in AUG 97 Payback Period: 2.4 years Rate of Return: 36.8%

CAPITAL PURCHASES JUSTIFICATION
(Dollars in Thousands)

A. FY 1996/1997 BIENNIAL BUDGET

B. Component/Business Area/Date
Navy/Depot Maintenance/Aviation Depot/

C. Line No. & Item Description
EKL5001N EDMICS

D. Activity Identification
JACKSONVILLE

ELEMENTS OF COST	FY 1995 QUANTI	FY 1995 UNIT COST	FY 1995 TOTAL COST	FY 1996 QUANTI	FY 1996 UNIT COST	FY 1996 TOTAL COST	FY 1997 QUANTI	FY 1997 UNIT COST	FY 1997 TOTAL COST	FY 1998 QUANTI	FY 1998 UNIT COST	FY 1998 TOTAL COST	FY 1999 QUANTI	FY 1999 UNIT COST	FY 1999 TOTAL COST
										1	717	717			

Justification:

The Engineering Data Management Information and Control System (EDMICS) is an automated, state-of-the-art engineering drawing repository utilizing digital imaging techniques, optical/digital mass storage, conventional (ADPE/MIS) computer resources and Local Area Network (LAN) technologies. EDMICS is a DoN Computer Aided Logistics Support (CALS) initiative and part of the NAVAIR Infrastructure Modernization effort.

The purpose of this project is to provide the NADEPs with the ability of storing large amounts of technical data in the CALS compliant digital format and to implement the EDMICS compatible automated Engineering Drawing Support Activity.

EDMICS will improve repository management by reducing or eliminating labor intensive functions associated with the receipt, storage, retrieval and distribution of drawing images. The system will permit authorized users the ability to add, delete, or change data as required. There will be increased efficiency in the processing of drawing requests and improved accuracy by providing the user with the latest drawing revision. Aperture card production costs will also be reduced.

A Cost benefit analysis has been performed for the review of economic indicators.

Average annual savings: starting FY 96 $630,477 Payback period: 2.5 years Rate of return: 31.5%

0001390

CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)												A. FY 1996/1997 BIENNIAL BUDGET		
B. Component/Business Area/Date Navy/Depot Maintenance/Aviation Depot/				C. Line No. & Item Description CKL00288CN DEFENSE MESSAGE SYSTEM UPGRADE								D. Activity Identification NORTH ISLAND		
										FY 1996			FY 1997	
ELEMENTS OF COST	QUANT	UNIT COST	TOTAL COST	QUANT	UNIT COST	TOTAL COST	QUANT	UNIT COST	TOTAL COST	QUANT	UNIT COST	TOTAL COST	QUANT	UNIT COST	TOTAL COST
										1	200	200			

Justification:

Defense Message System (DMS) compliance requires X.400 and X.500 capability. X.400 is an addressing scheme that provides common addressing for users. X.500 is a global directory service to locate users. Both of these require software and communications access to X.400 and X.500 services. In order for messages to be delivered to the desktop, adequate disk storage is required to hold messages for the required period of time. Software able to route and distribute these messages is also required as well as the means to import them into the system. All of this has to interoperate with the local EMail system, which itself, needs to migrate to DMS compliance.

Messages are sent to this commands via AUTODIN and the Message Centers (which are gradually being phased out). Electronic mail messages are sent to individuals from outside commands via the Defense Data Network (DDN). Local EMail systems provide local electronic mail capabilities. None of these can interface with each other. There is no way of getting messages and EMail delivered to the desktop computers.

Benefits include the following: The local EMail system would communicate with the outside world and other commands. Messages and files would be both sent and received and it would be easy to locate these remote users.
Messages would be delivered to the desktop in electronic form, eliminating the distribution of paper copies of these messages and storage of these paper copies.

If upgrade is not acquired, this NADEP will not meet mandatory compliance with the Defense Message System.

Estimate Operational Date: Jul 1997

000191

CAPITAL PURCHASES JUSTIFICATION
(Dollars in Thousands)

A. FY 1996/1997 BIENNIAL BUDGET

B. Component/Business Area/Date
Navy/Depot Maintenance/Aviation Depot/

C. Line No. & Item Description
EKL00013CN COMPUTER SYSTEM UPGRADE

D. Activity Identification
JACKSONVILLE

ELEMENTS OF COST	FY 1996 QUANT	FY 1996 UNIT COST	FY 1996 TOTAL COST	FY 1997 QUANT	FY 1997 UNIT COST	FY 1997 TOTAL COST				FY 1996 QUANT	FY 1996 UNIT COST	FY 1996 TOTAL COST	FY 1997 QUANT	FY 1997 UNIT COST	FY 1997 TOTAL COST
										1	114	114			

Justification:

This NADEP uses five host computer systems to provide services over the ethernet based network to more than 500 users located throughout the NADEP and remote areas. The host computer systems are presently being replaced by a single computer system. The new system will serve the existing 500 users and provide for network growth up to 1000 users. It is projected, however, that by FY96 the network growth will exceed 1000 users. A hardware upgrade is required to maintain capabilities.

This system upgrade includes one additional central processing unit (CPU) allowing multiple processors operating simultaneously in a symmetrical configuration; an additional 20 Gigabytes of disk storage with on-line cache to support increased workload and provide optimum performance to users; and an addition of 256 Megabytes of computer memory that will allow the system to internally process more data without having to swap out to slower external devices.

This project will maintain network capabilities by providing the forthcoming host computer system with sufficient resources to serve 1000 network users and allow for growth up to 1500 users. The present system will not provide adequate computer resources for the increasing workload and network growth.

A Cost Benefit Analysis has been performed with an: Average annual savings: $73,067 starting in FY96 Payback period: 1.2 years Rate of return: 64.1%

001392

CAPITAL PURCHASES JUSTIFICATION
(Dollars in Thousands)

A. FY 1996/1997 BIENNIAL BUDGET

B. Component/Business Area
Navy/Depot Maintenance/Aviation Depot

C. Line No. & Item Description
NKT0000 ADP & TELECOMMUNICATIONS EQUIPMENT (Less than $100,000)

D. Activity Identification

ELEMENTS OF COST	FY 1996 QUANT	FY 1996 UNIT COST	FY 1996 TOTAL COST	FY 1997 QUANT	FY 1997 UNIT COST	FY 1997 TOTAL COST	QUANT	UNIT COST	TOTAL COST	FY 1996 QUANT	FY 1996 UNIT COST	FY 1996 TOTAL COST	FY 1997 QUANT	FY 1997 UNIT COST	FY 1997 TOTAL COST
NORTH ISLAND										1	99	99			
TOTAL										1	99	99			

Justification:

	FY 1996	FY 1997
CSS00269BP Intelligence Software	99	

000193

FY 1995 DBOF Capital Program Reconcilliation

FY 1995 DBOF Capital Purchases
Deferrals, Cancellations, Substitutions

The following describes the changes in the Capital Purchase Program from the FY 1995 President's Budget to the FY 1995 column of the FY 1996/1997 President's Budget. The categories presented are as follows:

a.) Category of purchase/project name, as noted in the FY 1995 President's Budget
b.) Disposition of project: cancellation, deferral and/or substitution
c.) Explanation for cancellation or deferral and substitution/disposition of related funding

000194

FY 1995 DBOF CAPITAL PURCHASES
DEFERRALS, CANCELLATIONS, SUBSTITUTIONS

NAVY
($ in 000)

1. Depot Maintenance - Aviation Depots
   a. Non-ADP Equipment/High Pressure Compressed Air Storage System $1,200
   b. Substitution
   c. This project was originally planned for execution in FY 1993; however, a MILCON project (P-507) was in construction and temporarily occupied the physical site where the High Pressure Compressed Air Storage System was planned to be located. In order to avoid delay in the MILCON project, the project was moved to the 1995 program. Projects in the lower categories were deferred to the outyears to program this project in 1995.

2. Depot Maintenance - Aviation Depots
   a. Non-ADP Equipment/Auto Deblade System $ 760
   b. Cancellation and Substitution
   c. Project associated with the T-56 engine workload, which was transferred to the Air Force, (San Antonio,TX-LOC). Dollars were reprogrammed to the CORPORATE ASKARS UPGRADE which had changes in scope.

3. Depot Maintenance - Aviation Depots
   a. Non-ADP Equipment/CORPORATE ASKARS UPGRADE $ 2,140
   b. Deferral and Substitution
   c. Project was deferred due to delays in the design phase, obligations not likely to occur until FY 1996. Telephone System Upgrade substituted- $1,500
   Upgrade is to replace the existing telephone system due to is age and technical obsolescence. By utilizing an existing contract vehicle, we have the opportunity to execute the project within the next few months. Most of the balance was used for the ADPE projects mentioned in the following pages and transferred to the lower categories.

000195

FY 1995 DBOF CAPITAL PURCHASES
DEFERRALS, CANCELLATIONS, SUBSTITUTIONS

NAVY
($ in 000)

4. Depot Maintenance - Aviation Depots — $ 29
   a. ADP Equipment/Multi-User Computer System
   b. Substitution
   c. This project was originally planned for execution in FY 1994, due to not receiving FY 1994 carryover authority to obligate, this carryover amount to FY 1995. Dollars were programmed from Non-ADP Equipment category.

5. Depot Maintenance - Aviation Depots — $ 60
   a. ADP Equipment/File Server System
   b. Substitution
   c. This project was originally planned for execution in FY 1994, due to not receiving FY 1994 carryover authority to obligate, this carryover amount was programmed to FY 1995. Dollars were programmed from Non-ADP Equipment category.

6. Depot Maintenance - Aviation Depots — $ 375
   a. ADP Equipment/Desktop Publishing System
   b. Substitution
   c This project was originally planned for execution in FY 1994, due to not receiving FY 1994 carryover authority to obligate, this project was programmed to FY 1995. Dollars were programmed from Non-ADP Equipment and Minor Construction categories.

000196

FY 1995 DBOF CAPITAL PURCHASES
FUNDING DISPOSITION OF DEFERRALS, CANCELLATIONS, SUBSTITUTIONS

NAVY
($ in 000)

1. Depot Maintenance - Aviation Depots
   a. Non-ADP Equipment/High Pressure Compressed Air Storage System $1,200
   b. Substitution
   c. Due to the substitution, DBOF cash was not affected.

2. Depot Maintenance - Aviation Depots
   a. Non-ADP Equipment/Auto Deblade System $ 760
   b. Cancellation and Substitution
   c. Due to the substitution, DBOF cash was not affected.

3. Depot Maintenance - Aviation Depots
   a. Non-ADP Equipment/CORPORATE ASKARS UPGRADE $ 2,140
   b. Deferral and Substitution
   c. Project was deferred due to delays in the design phase, obligations not likely to occur until FY 1996. Telephone System Upgrade substituted- $1,500
   Balance after the Telephone System was reprogrammed to ADP Equipment on the following pages.
   Due to the substitution, DBOF cash was not affected.

000197

FY 1995 DBOF CAPITAL PURCHASES
FUNDING DISPOSITION OF DEFERRALS, CANCELLATIONS, SUBSTITUTIONS

NAVY
($ in 000)

4. Depot Maintenance - Aviation Depots	
a. ADP Equipment/Multi-User Computer System	$ 29
b. Substitution	
c. Due to the substitution, DBOF cash was not affected.	
5. Depot Maintenance - Aviation Depots	
a. ADP Equipment/File Server System	$ 60
b. Substitution	
c. Due to the substitution, DBOF cash was not affected	
6. Depot Maintenance - Aviation Depots	
a. ADP Equipment/Desktop Publishing System	$ 375
b. Substitution	
c. Due to the substitution, DBOF cash was not affected	

000198

DEPARTMENT OF THE NAVY
DEFENSE BUSINESS OPERATIONS FUND
NAVAL ORDNANCE CENTER
NAVAL WEAPONS STATIONS

Activity Group Function:

The Naval Ordnance Center (NAVORDCEN) and the Naval Weapons Stations (NWS) provide all services for explosive outloading of combat logistic force ships, amphibious ships, combatants, submarines and commercial vessels. The stations also provide retail ammunition management services including receipt, segregation, storage, issue and maintenance of ammunition. Other functions include intermediate and depot level maintenance assignments for air, surface and subsurface weapons, prototype and pilot production services, quality evaluation services, acquisition engineering-agent functions, support of non-tactical fleet data systems, and ordnance packaging, handling, storage and transportability. All five stations are host activities with significant military/tenant support responsibilities. Four of the stations provide complete homeporting services for naval combat logistic force ships. The activity group also includes the Naval Warfare Assessment Division (NWAD) and Inventory Management and Systems Division (IMSD). NWAD is responsible for the assessment of weapons performance by all Fleet units. This responsibility involves gauging the war fighting capacity of ships and aircraft, from unit to battlegroup level, by assessing the suitability of design, the performance of equipment and weapons, and the adequacy of training. The mission of the IMSD is to provide centralized ordnance inventory control.

Activity Group Composition:

Activities	Location
NAVORDCEN Atlantic Division	Yorktown, Virginia
Naval Weapons Station	Charleston, South Carolina
Naval Weapons Station	Earle, Colts Neck, New Jersey
Naval Weapons Station	Yorktown, Virginia
NAVORDCEN Pacific Division	Seal Beach, California
Naval Weapons Station	Concord, California
Naval Weapons Station	Seal Beach, California
Naval Warfare Assessment Division	Corona, California
Inventory Management and Systems Division	Mechanicsburg, Pennsylvania

Budget Highlights:

1. Summary of Budget Data.

$ in Mil.	FY 94	FY 95	FY 96	FY 97
Revenue	505.0	668.2	598.7	532.5
Cost	670.4	603.8	551.0	532.5
NOR	-165.4	*50.7	47.7	0.0
Transfer	0.0	78.7	0.0	0.0
AOR	-207.7	-78.3	#-30.6	0.0
Adjusted AOR	-207.7	-78.3	0.0	0.0
Civilian E/S	5,919	4,947	4,679	4,405
Civilian W/Yrs	6,155	5,410	4,884	4,599
Military E/S	358	292	816	816
Military W/Yrs	577	643	875	865

* Includes deduction of the Capital Surcharge of $13.7 million for JLSC.

This negative AOR will be offset by positive cash balance in Navy Supply.

Trends for revenue, cost, civilian and military personnel are consistent with assumptions and projections for direct workload, stabilized rates and achievement of a zero accumulated operating results (AOR) by the end of FY 1996 and FY 1997. FY 1995-1997 military end strength projections reflect 483 overhead personnel performing security guard and base support functions which were previously centrally funded by the MPN appropriation and reflected as non-DBOF military.

2. General. The NWS are undergoing major reorganizations as a result of Defense force structure reductions. These reorganizations will result in a projected 3,757 civilian personnel end strength reduction from the FY 1992 level of 8,162 to 4,405 by the end of FY 1997. This will equate to a 46 percent reduction in our civilian workforce. Highlights of the major variables impacting our current budget projections are explained in the following sections.

3. Civilian Manpower. The budget reflects the following NAVORDCEN civilian manpower profile:

	FY 94	FY 95	FY 96	FY 97
End Strength	5,896	4,947	4,679	4,405
Full Time Perms	5,412	4,746	4,406	4,139
Temps/Other	484	201	273	266

Workyears	6,516	5,645	5,130	4,830
ST Direct	3,500	3,273	2,981	2,801
ST Indirect	2,655	2,137	1,903	1,798
OT Equivalent	361	235	246	231
DLHs (Millions)	6.611	6.225	5.755	5.412

FY 1994-1997 reductions in civilian end strength and workyears is consistent with direct workload trends. From FY 1994-1997, direct labor hours are projected to drop by 18 percent, while total end strength and workyears will decrease by 25 and 25 percent respectively. Over this period, the largest workyear reductions are anticipated to occur in the indirect/overhead area. Indirect or overhead straight-time workyears are expected to decrease by 32 percent whereas direct straight-time workyears will decrease by 20 percent, consistent with the trend in direct workload. The significant reductions in indirect will result from both consolidation and flattening of the NAVORDCEN infrastructure via reduction and elimination of unnecessary and redundant functions, and outsourcing where it is cost effective. Selected overhead functions will be consolidated at the NAVORDCEN Atlantic and Pacific Divisions to achieve economies of scale.

The budget assumes the following with regard to VERA/SIP/RIF:

$ in Millions	FY 95	FY 96	FY 97
VERA/SIP	$1.2	$2.8	$1.4
# of Employees	51	119	59
RIF	$9.4	$3.1	$1.5
# of Employees	890	276	137

The following estimates for reserve contributory support have been incorporated in the budget:

	FY 95	FY 96	FY 97
Reserves ($ in Mil)	3.7	3.2	3.6
Workyears	78	90	100

4. **FY 1994-1997 Headquarters Costs:** The budget reflects the following NAVORDCEN Headquarters Costs in support of the Naval Weapons Stations.

$ in Millions	FY 94	FY 95	FY 96	FY 97
Cost of Operations	$13.1	$10.9	$10.7	$11.0

5. FY 1996/1997 Rates. FY 1996/1997 NWS rates were developed to recover all costs and achieve a zero accumulated operating results (AOR) by the end of FY 1996 and through FY 1997. For this budget,

FY 1996 proposed rates include an AOR recoupment of $47.7 million. The FY 1997 proposed rate is a break-even estimate and does not include a proposed AOR recoupment factor.

	FY 94	FY 95	FY 96	FY 97
Composite Rate	$80.52	$93.76	$106.60	$97.21
Composite Rate Change	--	+16.4%	+13.7%	-8.8%

6. Unit Cost. The budget reflects the following unit cost goals:

$/DLHs in Mil.	FY 94	FY 95	FY 96	FY 97
Total Costs	670.4	603.8	551.0	532.5
DLHs	6.611	6.225	5.755	5.412
Unit Cost	101.41	$97.00	$95.74	$98.39
% Chg. Unit Cost	10.9%	-4.3%	-1.3%	2.8%
% Chg. DLHs	-10.7%	-5.8%	-7.6%	-6.0%

7. Performance Measures. The performance measures for the Naval Ordnance Center are NOR, Schedules, and Quality.

	FY 95	FY 96	FY 97
NOR	50.7	47.7	0.0
Schedules	Measure under development		
Quality	Measure under development		

The NAVORDCEN's ability to consolidate and eliminate unnecessary and redundant overhead functions as its direct workload continues to decline is critical to achievement of the budget goals.

8. 1993 Base Realignment and Closure (BRAC-93). The budget includes the following amounts associated with the BRAC-93 decision to move the Standard Missile depot level maintenance workload from NWS Seal Beach to the Letterkenney Army Depot:

$ in Millions	FY 94	FY 95	FY 96	FY 97
Standard Missile Funding	0.014	0.336	0.457	0.000 End
Strength & Workyears	0	2	3	0

The Standard Missile depot level maintenance workload is part of a larger BRAC-93 decision to consolidate all DOD tactical missile depot level maintenance workload at Letterkenney Army Depot.

9. Capital Purchases Program (CPP). The CPP allows for improvement in readiness, sustainability and mobilization for mission support through replacement of existing overaged facilities and equipment and investment in new productivity enhancing projects. In addition, these

capital investments contribute to resolving environmental and safety compliance related requirements. The FY 1995 CPP budget reflects a decrease of $9.1 million in authority from the President's budget. The following displays the CPP requirements/authority reflected in the budget:

$ in Millions	FY 95	FY 96	FY 97
Equipment	2.4	4.6	2.9
ADP/IT	7.2	6.1	3.5
Minor Construction	2.4	2.9	3.0
Total CPP	12.0	13.6	9.4

DEFENSE BUSINESS OPERATIONS FUND
DEPARTMENT OF THE NAVY
NAVAL WEAPONS STATIONS
REVENUE AND EXPENSES
(Dollars in Millions)

	FY 1994	FY 1995	FY 1996	FY 1997
Revenue:				
Gross Sales	505.0	668.2	598.7	532.5
Operations	475.4	635.8	579.8	513.8
Capital Surcharge	0.0	13.7	0.0	0.0
Depreciation except Maj Const	18.9	18.7	18.9	18.7
Major Construction Depreciation	10.7	0.0	0.0	0.0
Other Income	0.0	0.0	0.0	0.0
Refunds/Discounts (-)	0.0	0.0	0.0	0.0
Total Income	**505.0**	**668.2**	**598.7**	**532.5**
Expenses:				
Cost of Materiel Sold from Inventory	0.0	0.0	0.0	0.0
Negotiated Purchases from Customers	0.0	0.0	0.0	0.0
Transportation	12.3	12.5	12.3	12.0
Salaries and Wages:				
Military Personnel	23.6	21.6	26.3	27.0
Civilian Personnel	307.1	279.5	255.5	246.1
Materials, Supplies and				
Parts used in Operations	56.8	59.7	39.4	32.6
Facility Repair Charge	66.1	44.3	44.5	51.1
Depreciation - Capital	30.5	18.7	18.9	18.7
Contracted Engineering Services	5.2	4.5	4.6	4.6
Lease Costs	1.0	1.5	1.6	1.6
Purchased Utilities	13.7	15.9	13.5	14.4
Purchased Communications	3.2	4.6	4.6	4.7
Equipment Maintenance	5.0	4.3	4.4	4.2
Fuel	2.9	3.0	3.0	2.9
Other Expenses	143.1	133.5	122.4	112.5
Total Expenses	**670.5**	**603.8**	**551.0**	**532.5**
Operating Result	(165.5)	64.4	47.7	0.0
Less Capital Surchg Reservation	0.0	13.7	0.0	0.0
Plus Appropriations Affecting NOR/AOR	0.0	0.0	0.0	0.0
Other Changes Affecting NOR/AOR	3.0	78.7	30.7	0.0
Net Operating Result	(162.4)	129.4	78.3	0.0
Prior Year AOR	(45.3)	(207.7)	(78.3)	0.0
Accumulated Operating Result	(207.7)	(78.3)	0.0	0.0

BUSINESS AREA ANALYSIS
DEPARTMENT OF THE NAVY
NAVAL WEAPONS STATIONS
SOURCE OF REVENUE
(Dollars in Millions)

	FY 1994	FY 1995	FY 1996	FY 1997
1. New Orders	503.4	667.0	606.3	549.6
a. Orders from DoD Components	415.6	551.3	492.9	443.2
Department of the Navy	404.2	533.1	470.0	420.6
Operations and Maintenance, Navy	263.4	328.6	273.8	227.0
Operations and Maintenance, Marine Corps	5.6	3.5	5.7	6.5
O&M, Navy Reserve	0.9	1.6	1.6	1.3
O&M, Marine Corps Reserve	0.0	0.0	0.0	0.0
Aircraft Procurement, Navy	3.2	6.2	6.0	6.2
Weapons Procurement, Navy	32.5	41.1	36.8	37.3
Shipbuilding & Conversion, Navy	25.6	61.9	59.7	62.5
Other Procurement, Navy	25.4	25.7	24.9	24.8
Procurement, Marine Corps	4.7	15.4	10.1	10.4
Family Housing, Navy and Marine Corps	28.1	21.4	22.6	20.9
Research, Development, Test & Eval, Navy	14.0	8.9	7.5	6.9
Military Construction, Navy	0.5	0.0	0.0	0.0
Other Navy Appropriations	0.1	19.0	21.2	16.9
Other Marine Corps Appropriations	0.0	0.0	0.0	0.0
Department of the Army	6.1	6.2	10.5	11.4
Army Operation & Maintenance Accounts	2.8	3.5	2.5	2.7
Army Res, Dev, Test & Eval Accounts	0.2	1.2	1.4	1.1
Army Procurement Accounts	0.0	0.0	0.0	0.0
Army Other	3.1	1.5	6.6	7.6
Department of the Air Force	1.8	10.4	10.6	10.1
Air Force Operation & Maintenance Accounts	1.2	9.6	9.5	9.0
Air Force Res, Dev, Test & Eval Accounts	0.3	0.1	0.1	0.1
Air Force Procurement Accounts	0.0	0.0	0.0	0.0
Air Force Other	0.3	0.7	1.0	0.9
DoD Appropriated Accounts	3.6	1.6	1.8	1.0
Base Closure and Realignment	0.0	0.3	0.4	0.0
Operation & Maintenance Accounts	0.0	0.0	0.0	0.0
Res, Dev, Test & Eval Accounts	0.0	0.0	0.0	0.0
Procurement Accounts	0.6	0.0	0.0	0.0
DoD Other	2.9	1.3	1.3	1.0
b. Orders from DBOF Business Areas	63.1	66.2	66.2	58.0
c. Total DoD	478.7	617.5	559.1	501.2
d. Other Orders	24.7	49.5	47.2	48.4
Other Federal Agencies	1.0	0.7	0.6	0.6
Trust Funds (including FMS)	20.5	44.6	42.2	43.4
Non Federal Agencies	3.1	4.2	4.4	4.4
2. Carry-In Orders	189.7	188.1	186.9	194.5
3. Total Gross Orders (available funding)	693.1	855.1	793.2	744.1
4. Carry-Out Orders	188.1	186.9	194.5	211.6
Change in Backlog (carry-out less carry-in)	(1.6)	(1.2)	7.6	17.1
5. Total Gross Sales	505.0	668.2	598.7	532.5

Summary of Price, Program and Other Changes (Operating Budget)
Department of the Navy
NAVAL WEAPONS STATIONS
February 1995
($ in Thousands)

	Cost of Operations FY 1994	Price Growth	Program & Other Changes	Cost of Operations FY 1995	Price Growth	Program & Other Changes	Cost of Operations FY 1996	Price Growth	Program & Other Changes	Cost of Operations FY 1997
Military Personnel Compensation	23,581	613	(2,565)	21,629	0	4,706	26,335	0	656	26,991
Civilian Personnel Compensation	307,077	6,596	(34,182)	279,491	1,888	(25,865)	255,514	2,785	(12,152)	246,147
Travel	12,274	138	62	12,474	106	(367)	12,213	100	(372)	11,941
Material & Supplies - Commercial	19,662	514	4,018	24,194	721	(8,960)	15,955	474	(835)	15,594
Material & Supplies - from DBOF	40,711	2,849	(4,293)	39,267	(1,876)	(10,903)	26,488	1,197	(7,827)	19,858
Other Intrafund (DBOF) Purchases	43,283	4,103	933	48,319	59	(1,967)	46,411	1,500	2,545	50,456
Transportation	59	2	8	69	3	(14)	58	2	(2)	58
Capital Investment Depreciation	30,532	0	(11,810)	18,722	0	216	18,938	0	(257)	18,681
Other Purchases	193,222	5,410	(38,996)	159,636	4,789	(15,289)	149,136	4,474	(10,843)	142,767
Total Operating Budget *	**670,401**	**20,225**	**(86,825)**	**603,801**	**5,690**	**(58,443)**	**551,048**	**10,532**	**(29,087)**	**532,493**

*Includes Reimbursements

002206

FY96/97 PRESIDENT'S BUDGET SUBMISSION
DEPARTMENT OF THE NAVY
DEFENSE BUSINESS OPERATIONS FUND
NAVAL ORDNANCE CENTER

SUMMARY OF CHANGES IN OPERATIONS

($M)

		COSTS
1.	FY 1994 Actual	670.4
2.	FY 1995 Presidents Budget	471.0
3.	Estimated Impact in FY 1995 of Actual FY 1994 Experience	
4.	Pricing Adjustments	
5.	Productivity Initiatives	
6.	Program Changes:	
	a. Workload:	
	1. Direct Civilian Workyear/Labor Cost changes for increased workload in the following areas: Maintenance Crash & Measurement Science Supt for Lakehurst Family Housing Air Force Supt SPCC Repairables Standard Missile/Vertical Launching System Mare Island Annex Foreign Military Sales AEGIS Acquisition Training for Naval Education & Training Prog Mgmt Spt Activity Marine Corps Supt Air Launched Missile Material Readiness at NWAD Division 2E/2T Cog Ammunition	11.8

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2.	Direct Material Cost changes associated with increased direct workload (mentioned above); specifically in the following areas: New Ships Outfitting requirements Fiber Optic Integrated Voice Communications System (FOIVCS) U.S. Air Force Prepositioned Ships Fleet range/TACTS Aviation Support Equipment Maintenance Performance Assessment Measurement Science Tech rep, Pomona Quality Assurance	9.8
3.	Direct Travel Cost changes associated with increased direct workload	1.7
4.	Direct Contract Cost changes associated with increased direct workload, specifically in the following areas: Measurement Science Quality Assessment Transportation and Utility Support Family Housing Support Performance Assessment Fleet range/TACTS Air Launched Missile Support Tug & Equipment rental (Prepo Ships) New Ships Outfitting requirements Marine Corps Ammo Quality Eval Napalm Disposal Fiber Optic Integrated Voice Communications Systems (FOIVCS) Tech Rep Pomona Security Support Standard Missile Support 2E/2T Ammunition Support Tomahawk Cruise Missile	58.7

802000

Aviation Support Equipment Maintenance
Equipment Calibration Atlantic Fleet Units
Technical Services in support of the Navy's Test Equipment Calibration Program
Science Material/Procurement Support
SM UHF Telemetry DLMF MK612 Test set
AEGIS housing lease
Engineering Support for Extended Echo Ranging
Army Support
Air Force Support
SPCC Repairables
Mine Support

5. Overhead Labor Cost Changes associated with RIF/SIP/VERA 10.6

6. Overhead Labor Cost Changes associated with Locality Pay for HQ and East Coast Weapo Stations (Yorktown, Charleston), pricing adjustments, and stay-in-schools 4.4

7. Overhead Labor Cost Changes associated with 9% Retirement tax and $80 per on board tax 0.7

8. General & Administrative Contract Cost Changes (excluding HRO) associated with: 11.8
   Ordnance Handling/Explosive Safety Program $7.3M
   ADP support services $2.6M
   Telephone rate increases associated with CATS $2.0M
   Increased DFAS costs $.4M

9. Production Expense Contract Cost Changes associated with: 11.6
   CAIMS support services $4.0M
   Service contract (BOSC) at Port Hadlock $3.5M
   In support of Naval Warfare Assessment Division increased workload $2.4M
   YFN/YTB Overhaul increase $1.4M

10. General & Administrative and Production Expense Material Cost Changes associated increased CPP threshold change, and increased direct workload 2.9

13. General & Administrative and Production Expense "Other" Cost Changes associated primarily with increased FECA costs, and travel 8.8

602000

7.	FY 1995 Current Estimate	603.8
8.	Pricing Adjustments:	
a.	FY 1996 Payraise	
1.	Civilian Personnel	1.0
2.	Military Personnel	0.0
b.	Annualization of prior year payraise	0.8
c.	Stock Fund - Fuel	0.0
d.	Stock Fund - Non Fuel	(1.9)
e.	Non Stock Fund/Equipment	0.3
f.	DBOF Price Changes	0.1
g.	General Purchase Inflation	4.8
h.	Travel/Transportation/Other	0.1
9.	Productivity initiatives and Other Efficiencies	
10.	Program Changes:	
a.	Workload	
1.	Direct Civilian Workyear/Labor Cost changes for overall decreased workyears at the Naval Weapons Stations (from 3,424 (ST+OT) in FY95 to 3,142 (ST+OT) in FY96) as a result of reductions in customer support requirements impacted by concerted efforts to downsize. Reductions in manpower are being implemented through the Reduction in Force (RIF) process, VERA/SIP initiatives and attrition.	(12.2)
2.	Direct Military Labor Cost changes associated with priceout based on equivalent civilian rate tables	(0.5)
3.	Direct Material Cost changes associated with decreased workload (mentioned above), and specifically in the following areas: NWS Seal Beach: completion of the FMS Ships Outfitting NWS Concord: decreased requirement for the Air Force prepositioned ship program and FMS case JA-P-LND NWAD: Measurement Science, Performance Assessment and Quality Assurance	(20.4)

000210

Directorates
NWS Yorktown: reduction due to prior year purchase of the Fiber Optic Integrated Voice Communication System (FOIVCS); and the Integrated Voice Communication System (IVCS)
NWS Charleston and Earle: reductions due to less funding available from resource sponsors

4. Direct Travel Cost changes associated with decreased direct workload (0.3)

5. Direct Contract Cost changes associated with significant reductions in direct workload and general downscaling of the Department of Defense, and specifically in the following areas: (17.1)
   Science & Engineering
   Science Material Support
   Measurement Science
   Quality Assurance
   Fiber Optic Integrated Voice Communications Systems (FOIVCS)
   Performance Assessment
   Tech Rep Pomona
   Waterfront Operations
   Fleet range/TACTS
   Demil

6. Production Expense Military Workyears/Military Labor Cost changes associated with decreased military (from 136 military PE workyears in FY95 to 112 military PE workyears in FY96). The reduction in military personnel is based on the future year defense plan (FYDP) and the military labor price out based on equivalent civilian rates. (2.1)

7. Overhead Civilian Labor Cost changes associated with RIF/SIP/VERA (4.8)

8. Other Overhead Civilian Labor Cost changes. (0.1)

9. General & Administrative Material Cost changes associated primarily with equipment purchases. (e.g. CPP threshold change effective FY 1996) 0.5

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10. General & Administrative Contract Cost changes associated primarily with reduction in purchased utilities (i.e. NWS Yorktown completion of utility projects of the water distribution and steam line system) (1.0)

12. FY 1996 Current Estimate 551.0

13. Pricing Adjustments:
    a. FY 1997 Payraise
        1. Civilian Personnel 1.6
        2. Military Personnel 0.0
    b. Annualization of prior year payraise 1.2
    c. Stock Fund - Fuel 0.0
    d. Stock Fund - Non-Fuel 1.2
    e. Non Stock Fund Material/Equipment 0.2
    f. DBOF Price Changes 1.5
    g. General Purchase Inflation 4.5
    h. Travel/Transportation/Other 0.1
    10.3

14. Productivity initiatives

15. Program Changes:
    a. Workload
        1. Direct Civilian Workyear/Labor Cost changes for overall decreased workyears at the Naval Weapons Stations (from 3,142 (ST+OT) in FY96 to 2,948 (ST+OT) in FY97) as a result of of reductions in customer support requirements implemented by concerted efforts to downsize. Reductions in manpower are being impacted through the Reduction in Force (RIF) process, VERA/SIP initiatives and attrition. (5.4)

        2. Direct Material Cost changes associated with decreased workload (mentioned above), and specifically in the following areas: (3.4)
            Container Repair, MK-86 Antenna Ranging, and New Ships Outfitting
            Detachment Fallbrook: Marine Corps Programs and Air Launch Missile Production
            NWAD: Telementry/Fleet Exercises and TACTS/Training Range Operations
            NWS Concord: Completion of FMS case JA-P-LND, and AEGIS procurement
            NWS Yorktown, Charleston, Earle: Workload reductions

000212

3.	Direct Contract Cost changes associated with significant reductions in direct workload and general downscaling of the Department of Defense, and specifically in the following areas: NWAD: Reduced contractor requirements for the Performance Assessment, Quality Assurance and Scientific Engineering Directorates Detachment Fallbrook: reduced ALM contract support NWS Yorktown, Charleston, Earle: reduction to contract requirements	(12.6)
4.	Overhead Civilian Labor Cost changes associated with RIF/SIP/VERA	(3.1)
5.	Overhead Civilian Labor Cost changes associated with decreased overhead workyears (from 1,988 (ST+OT) in FY96 to 1,882 (ST+OT) in FY97)	(4.3)
16.	FY 1997 Current Estimate	532.5

000213

DEFENSE BUSINESS OPERATIONS FUND
DEPARTMENT OF THE NAVY
NAVAL WEAPONS STATIONS

MATERIAL INVENTORY DATA
(Dollars in Millions))
FISCAL YEAR 1994

			-------- Peacetime --------	
	Total	Mobilization	Operating	Other
Materiel Inventory BOP	16.7	0.0	16.7	0.0
BOP Reclassification Changes	0.0	0.0	0.0	0.0
Price Changes	0.0	0.0	0.0	0.0
Receipts from Commercial Sources	0.0	0.0	0.0	0.0
Negotiated Purchase from Customers	56.2	0.0	56.2	0.0
Gross Sales	60.4	0.0	60.4	0.0
Materiel Inventory Adjustments				
CAPITALIZATIONS + OR (-)	0.0	0.0	0.0	0.0
RETURNS TO SUPPLIERS (-)	0.0	0.0	0.0	0.0
TRANSFERS TO PROP. DISP.(-)	0.0	0.0	0.0	0.0
ISSUES/RECEIPTS WITHOUT REIMBURSEMENT + or (-)	0.0	0.0	0.0	0.0
OTHER (list)	0.0	0.0	0.0	0.0
TOTAL ADJUSTMENTS	0.0	0.0	0.0	0.0
Materiel Inventory EOP	12.5	0.0	12.5	0.0
ECONOMIC RETENTION (memo)	0.0			
POLICY RETENTION (memo)	0.0			
POTENTIAL EXCESS (memo)	0.0			
Materiel Inventory on Order EOP (memo)	3.1	0.0	3.1	0.0

DEFENSE BUSINESS OPERATIONS FUND
DEPARTMENT OF THE NAVY
NAVAL WEAPONS STATIONS

MATERIAL INVENTORY DATA
(Dollars in Millions))
FISCAL YEAR 1995

			-------- Peacetime --------	
	Total	Mobilization	Operating	Other
Materiel Inventory BOP	12.5	0.0	12.5	0.0
BOP Reclassification Changes	0.0	0.0	0.0	0.0
Price Changes	0.0	0.0	0.0	0.0
Receipts from Commercial Sources	0.0	0.0	0.0	0.0
Negotiated Purchase from Customers	62.8	0.0	62.8	0.0
Gross Sales	63.5	0.0	63.5	0.0
Materiel Inventory Adjustments				
CAPITALIZATIONS + OR (-)	0.0	0.0	0.0	0.0
RETURNS TO SUPPLIERS (-)	0.0	0.0	0.0	0.0
TRANSFERS TO PROP. DISP.(-)	0.0	0.0	0.0	0.0
ISSUES/RECEIPTS WITHOUT REIMBURSEMENT + or (-)	0.0	0.0	0.0	0.0
OTHER (list)	0.0	0.0	0.0	0.0
TOTAL ADJUSTMENTS	0.0	0.0	0.0	0.0
Materiel Inventory EOP	11.8	0.0	11.8	0.0
ECONOMIC RETENTION (memo)	0.0			
POLICY RETENTION (memo)	0.0			
POTENTIAL EXCESS (memo)	0.0			
Materiel Inventory on Order EOP (memo)	3.0	0.0	3.0	0.0

DEFENSE BUSINESS OPERATIONS FUND
DEPARTMENT OF THE NAVY
NAVAL WEAPONS STATIONS

MATERIAL INVENTORY DATA
(Dollars in Millions))
FISCAL YEAR 1996

			-------- Peacetime --------	
	Total	Mobilization	Operating	Other
Materiel Inventory BOP	11.8	0.0	11.8	0.0
BOP Reclassification Changes	0.0	0.0	0.0	0.0
Price Changes	0.0	0.0	0.0	0.0
Receipts from Commercial Sources	0.0	0.0	0.0	0.0
Negotiated Purchase from Customers	41.6	0.0	41.6	0.0
Gross Sales	42.4	0.0	42.4	0.0
Materiel Inventory Adjustments				
CAPITALIZATIONS + OR (-)	0.0	0.0	0.0	0.0
RETURNS TO SUPPLIERS (-)	0.0	0.0	0.0	0.0
TRANSFERS TO PROP. DISP.(-)	0.0	0.0	0.0	0.0
ISSUES/RECEIPTS WITHOUT REIMBURSEMENT + or (-)	0.0	0.0	0.0	0.0
OTHER (list)	0.0	0.0	0.0	0.0
TOTAL ADJUSTMENTS	0.0	0.0	0.0	0.0
Materiel Inventory EOP	11.0	0.0	11.0	0.0
ECONOMIC RETENTION (memo)	0.0			
POLICY RETENTION (memo)	0.0			
POTENTIAL EXCESS (memo)	0.0			
Materiel Inventory on Order EOP (memo)	2.8	0.0	2.8	0.0

DEFENSE BUSINESS OPERATIONS FUND
DEPARTMENT OF THE NAVY
NAVAL WEAPONS STATIONS

MATERIAL INVENTORY DATA
(Dollars in Millions))
FISCAL YEAR 1997

			-------- Peacetime --------	
	Total	Mobilization	Operating	Other
Materiel Inventory BOP	11.0	0.0	11.0	0.0
BOP Reclassification Changes	0.0	0.0	0.0	0.0
Price Changes	0.0	0.0	0.0	0.0
Receipts from Commercial Sources	0.0	0.0	0.0	0.0
Negotiated Purchase from Customers	34.8	0.0	34.8	0.0
Gross Sales	35.5	0.0	35.5	0.0
Materiel Inventory Adjustments				
CAPITALIZATIONS + OR (-)	0.0	0.0	0.0	0.0
RETURNS TO SUPPLIERS (-)	0.0	0.0	0.0	0.0
TRANSFERS TO PROP. DISP.(-)	0.0	0.0	0.0	0.0
ISSUES/RECEIPTS WITHOUT REIMBURSEMENT + or (-)	0.0	0.0	0.0	0.0
OTHER (list)	0.0	0.0	0.0	0.0
TOTAL ADJUSTMENTS	0.0	0.0	0.0	0.0
Materiel Inventory EOP	10.3	0.0	10.3	0.0
ECONOMIC RETENTION (memo)	0.0			
POLICY RETENTION (memo)	0.0			
POTENTIAL EXCESS (memo)	0.0			
Materiel Inventory on Order EOP (memo)	2.6	0.0	2.6	0.0

Depot Maintenance Capital Budget Submission
Department of the Navy
Depot Maintenance/Weapons Station
FY 96/97 President's Budget
($In Millions)

		FY94		FY95		FY96		FY97	
Line #	DESCRIPTION	QTY	TOTAL COST	QTY	TOTAL COST	QTY	TOTAL COST	QTY	TOTAL COST
	1a. Non ADP Equip > 500K								
1	P-171 NON-ADP EQUIP W (New Mission)	1	0.860	1	0.076				
	Subtotal Non ADP Equip		0.860		0.076				
	1b. Misc.Non ADP Equip < 500K								
2	Replacement	VAR	2.083	VAR	1.396	VAR	3.125	VAR	2.246
3	Productivity	VAR	0.372	VAR	0.093	VAR	0.140		
4	New Mission	VAR	0.252	VAR	0.456	VAR	0.157	VAR	0.169
5	Envir/Safety	VAR	0.513	VAR	0.330	VAR	1.218	VAR	0.466
	Subtotal Misc Non ADP Equip		3.220		2.275		4.640		2.881
	2a. ADP Equip > 100K								
6	B&L OPEN SYS NETWRK 96/97 S (Replacement)					1	0.190	1	0.113

000218

Depot Maintenance Capital Budget Submission
Department of the Navy
Depot Maintenance/Weapons Station
FY 96/97 President's Budget
($In Millions)

		FY94		FY95		FY96		FY97	
Line #	DESCRIPTION	QTY	TOTAL COST	QTY	TOTAL COST	QTY	TOTAL COST	QTY	TOTAL COST
7	BROADBAND EXPANSION L (Replacement)					1	0.185		
8	ENGINEERING DEVELOPMENT SUPPORT SYSTEM (Replacement)					1	0.165	1	0.125
9	ETHERNET COMM SYSTEM L (Replacement)	2	0.100						
10	HIGH SPEED ON LINE DOCUMENT RETRIEVAL SYSTEM (Replacement)					1	0.200	1	0.075
11	LAN Expansion (Replacement)	1	0.280						
12	NETWORK MANAGEMENT SYSTEM (Replacement)	1	0.286						
13	ON LINE MASS STORAGE AND CENTRAL PROCESSOR (Replacement)	1	0.150			1	0.150	1	0.150
14	DMRD 924 MIGRATION TO OSE (Productivity)	VAR	13.413	VAR	5.455	VAR	2.037		
15	APPLICATIONS SERVER (Productivity)					1	0.150		
16	CAD WORKSTATION (Productivity)	VAR	0.075	VAR	0.073				
17	OPT SCAN STOR/RETR SYS W (Productivity)							1	0.450

Depot Maintenance Capital Budget Submission
Department of the Navy
Depot Maintenance/Weapons Station
FY 96/97 President's Budget
($In Millions)

Line #	DESCRIPTION	FY94 QTY	FY94 TOTAL COST	FY95 QTY	FY95 TOTAL COST	FY96 QTY	FY96 TOTAL COST	FY97 QTY	FY97 TOTAL COST
18	SPARC FILE SERVER (Productivity)							1	0.150
19	P-171 ADP EQUIP W (New Mission)	1	1.120	1	0.601	1	0.340	1	0.861
20	DATA COMMUNICATIONS 95/96 W (New Mission)			1	0.250	1	0.506		
21	B&L OPEN SYS(LAN) 94 S (New Mission)	1	0.200						
	Subtotal ADP Equip		15.624		6.379		3.923		1.924
	2b. Misc.ADP Equip < 100K								
22	Replacement	VAR	0.341			VAR	0.090		
23	Productivity	VAR	0.062						
24	New Mission	VAR	0.098						
	Envir/Safety								
	Subtotal Misc ADP Equip		0.501				0.090		

000220

Depot Maintenance Capital Budget Submission
Department of the Navy
Depot Maintenance/Weapons Station
FY 96/97 President's Budget
($In Millions)

Line #	DESCRIPTION	FY94 QTY	FY94 TOTAL COST	FY95 QTY	FY95 TOTAL COST	FY96 QTY	FY96 TOTAL COST	FY97 QTY	FY97 TOTAL COST
	3a. Telecomm Equipment > 100K								
25	TELEPHONE SYSTEM REPLACEMENT (Replacement)	1	1.950	1	0.824				
26	VIDEO TELECON SYS SB/PAC S 95/97 (Productivity)			1	0.042			1	0.310
27	TLM QUICK TDP W (New Mission)					1	0.101		
	Subtotal Telecomm Equipment		1.950		0.866		0.101		0.310
	3b. Misc.Telecomm Equipment < 100K								
	Replacement								
	Productivity								
	New Mission								
	Envir/Safety								
	Subtotal Misc Telecomm Equipment								

00221

Depot Maintenance Capital Budget Submission
Department of the Navy
Depot Maintenance/Weapons Station
FY 96/97 President's Budget
($In Millions)

		FY94		FY95		FY96		FY97	
Line #	DESCRIPTION	QTY	TOTAL COST	QTY	TOTAL COST	QTY	TOTAL COST	QTY	TOTAL COST
	4a. Off the Shelf Software > 100K								
28	B&L OPEN SYS 96 S (New Mission)					1	0.156		
	Subtotal Off the Shelf Software						0.156		
	4b. Misc.Off the Shelf Software < 100K								
	Replacement								
	Productivity								
	New Mission								
	Envir/Safety								
	Subtotal Misc Off the Shelf Software								
	5a. Software Development > 100K								
29	NAVORDCEN EXECUTIVE INFORMATION SYSTEM (EIS) (Productivity)					VAR	1.500	VAR	0.900

000222

Depot Maintenance Capital Budget Submission
Department of the Navy
Depot Maintenance/Weapons Station
FY 96/97 President's Budget
($In Millions)

		FY94		FY95		FY96		FY97	
Line #	DESCRIPTION	QTY	TOTAL COST	QTY	TOTAL COST	QTY	TOTAL COST	QTY	TOTAL COST
30	STOCKPILE ANALYSIS SOFTWARE (Productivity)					VAR	0.360	VAR	0.373
	Subtotal Software Development						1.860		1.273
	5b. Misc.Software Development < 100K								
	Replacement								
	Productivity								
	New Mission								
	Envir/Safety								
	Subtotal Misc Software Development								
	6a. Central Design Act Hardware > 100K								

000223

Depot Maintenance Capital Budget Submission
Department of the Navy
Depot Maintenance/Weapons Station
FY 96/97 President's Budget
($In Millions)

		FY94		FY95		FY96		FY97	
Line #	DESCRIPTION	QTY	TOTAL COST	QTY	TOTAL COST	QTY	TOTAL COST	QTY	TOTAL COST
	Subtotal Central Design Act Hardware								
	6b. Misc.Central Design Act Hardware < 100K								
	Replacement								
	Productivity								
	New Mission								
	Envir/Safety								
	Subtotal Misc Central Design Act Hardware								
	7a. Minor Construction > 200K								
31	EXPAND C-1 FOR SECURITY DEPARTMENT (Productivity)								0.250
32	EXPAND R-5, W/F SECURITY (Productivity)						0.260		

000224

Depot Maintenance Capital Budget Submission
Department of the Navy
Depot Maintenance/Weapons Station
FY 96/97 President's Budget
($In Millions)

		FY94		FY95		FY96		FY97	
Line #	DESCRIPTION	QTY	TOTAL COST	QTY	TOTAL COST	QTY	TOTAL COST	QTY	TOTAL COST
33	INSTALL PAVED ROADS IN MAGAZINE AREAS (Env/Safety)						0.200		0.200
34	LIGHTNING PROTECTION VARIOUS LOCATIONS (Env/Safety)								0.240
35	PRIMARY GROUNDING - PIER 3 (Env/Safety)								0.280
36	PROVIDE SECONDARY GROUNDING - PIER 3 (Env/Safety)						0.280		
37	SPRINKLER SYSTEMS/FIRE ALARMS (Env/Safety)								0.210
	Subtotal Minor Construction						0,740		1.180
	7b. Misc.Minor Construction < 200K								
38	Replacement	VAR	0.587	VAR	0.253	VAR	0.335		
39	Productivity	VAR	0.475	VAR	0.130	VAR	0.570		
40	New Mission	VAR	0.217	VAR	0.231			VAR	0.200
41	Envir/Safety	VAR	3.074	VAR	1.770	VAR	1.216	VAR	1.616

000225

Depot Maintenance Capital Budget Submission
Department of the Navy
Depot Maintenance/Weapons Station
FY 96/97 President's Budget
($In Millions)

Line #	DESCRIPTION	FY94 QTY	FY94 TOTAL COST	FY95 QTY	FY95 TOTAL COST	FY96 QTY	FY96 TOTAL COST	FY97 QTY	FY97 TOTAL COST
	Subtotal Misc Minor Construction		4.353		2.384		2.121		1.816
	GRAND TOTAL		26.508		11.980		13.631		9.384

00226

DEPOT MAINTENANCE CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY96/97 President's Budget								
B. Component/Business Area/Date DON/DEPOT MAINT/WPNSTA/				C. Line. No & Description 2/Misc Non ADP Equip Rep Items			D. Activity Identification NAVAL ORDNANCE CENTER					
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
NON-ADP EQUIP							VAR		3,125	VAR		2,246

Narrative Justification: (Replacement)

This investment replaces aged equipment that is beyond economical repair and will reduce downtime and maintenance. Examples of the types of equipment being purchased are test equipment, an electro-arc disintegrator, milling machines, lathes, two way radio console, 420 KV x-ray machine, a robotic welder, civil engineering support equipment such as tractor trucks, multi-step van, loaders, a wrecker, forklifts, tractors, and a crane.

422000

DEPOT MAINTENANCE CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY96/97 President's Budget								
B. Component/Business Area/Date DON/DEPOT MAINT/WPNSTA/				C. Line. No & Description 3/Misc Non ADP Equip Prod Items				D. Activity Identification NAVAL ORDNANCE CENTER				
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
NON-ADP EQUIP									140			

Narrative Justification: (Productivity)

These investments are productivity related items which improve the quality and efficiency of the work performed at the weapons stations. The equipment being purchased is an ultrasonic (UT) imaging system. An economic analysis was completed on this project and the following information is provided.

LIFETIME DISCOUNTED SAVINGS ($000)	SAVINGS BEGINS	SAVINGS TO INVESTMENT RATIO (SIR)	PAYBACK PERIOD
077	1998	1.55	6.15 YRS

000228

DEPOT MAINTENANCE CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY96/97 President's Budget								
B. Component/Business Area/Date DON/DEPOT MAINT/WPNSTA/				C. Line. No & Description 4/Misc Non ADP Equip New Mission Items			D. Activity Identification NAVAL ORDNANCE CENTER					
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
NON-ADP EQUIP							VAR		157	VAR		169

Narrative Justification: (New Mission)

The investment purchases equipment such as a fiber optic power test station and an infrared radiometer.

The Imaging IR Radiometer is required by the Measurement Science Lab to have lab capabilities to perform engineering calibration, tests, investigations and capabilities on weapons systems and test equipment which use thermal generation and detection. These new capabilities do not exist for this new equipment requirement.

The Optic Power Test Station is also required by the Measurement Science Lab to have lab capabilities to perform engineering tests, investigations, and calibrations on new fiber optics equipment in the Navy. These new capabilities do not exist for this new equipment requirement.

000229

DEPOT MAINTENANCE CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY96/97 President's Budget								
B. Component/Business Area/Date DON/DEPOT MAINT/WPNSTA/				C. Line. No & Description 5/Misc Non ADP Equipment Env/Safety Items			D. Activity Identification NAVAL ORDNANCE CENTER					
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
Non ADP Equipment							VAR		1,218	VAR		466

Narrative Justification: (Environ/Safety)

These projects are required to meet regulatory requirements which are primarily environmental or safety related. Examples of the types of equipment being purchased are a wastewater treatment system, anechoic chamber, low voltage portable x-ray cell, sewage aerator system, hazardous material/waste drum stacking system, pollution control equipment and fire fighting trucks.

0002230

DEPOT MAINTENANCE CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY96/97 President's Budget								
B. Component/Business Area/Date DON/DEPOT MAINT/WPNSTA/				C. Line. No & Description 6/B&L OPEN SYS NETWRK 96/97 S			D. Activity Identification NOCPAC DIVISION, SEAL BEACH					
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
ADP EQUIP							1	190	190	1	113	113

Narrative Justification: (Replacement)

Replace old technology at NOCPACDIV sites with high-speed backbones and interconnections. This will include fiber optic cable and connections, enterprise hubs, bridges, routers, gateways and associated infrastructure management software, and test equipment. This is an on-going project, begun in FY 93, to modernize internal infrastructure.

NAVSEA is creating an interactivity high-speed infrastructure to support Navy and DoD consolidation initiatives. NOCPACDIV must modernize internal infrastructure at all sites and interconnectivity between sites to support the consolidation. Current local infrastructure and intersite connectivity only supports relatively low data rates and serial connections associated with proprietary business systems being replaced with open systems and client/server architectures. In FY 93 and 94, Seal Beach, Fallbrook, and Port Hadlock are replacing local infrastructure with high-speed, fiberoptic and unshielded twisted pair 10MB or better technology to meet the new requirements for business and mission support systems. FY 96 and 97 will add components to complete full intra/inter-site connectivity, with additional Pacific sites expected to be added to NOCPACDIV.

Without the equipment in place when DoD implements their Centralized Corporate Information Management (CIM) package, NOCPACDIV will be unable to communicate with important DOD offices. This will have a strong negative impact on our mission and workload.

000231

DEPOT MAINTENANCE CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY96/97 President's Budget								
B. Component/Business Area/Date DON/DEPOT MAINT/WPNSTA/				C. Line. No & Description 7/BROADBAND EXPANSION L			D. Activity Identification NOCPAC DIVISION, PORT HADLOCK					
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
ADP EQUIP INSTALLATION TOTAL							1	85	85 100 185			

Narrative Justification: (Replacement)

Broadband cabling, amplifiers, taps, and hardware required to extend existing broadband cable plant from headend equipment located at bldg 69 to bldg 833 located at the pier.

Provide continued ADP support to pier facilities located at Port Hadlock. Local Area Network capability currently terminates approximately one mile from the pier. Extending the network will allow greatly improved ADP support for ship loadouts, ordnance management support (OMS), and military support personnel working at the pier. This will also provide much needed access to anticipated network facilities including file servers and network printers.

Without complete network access throughout Port Hadlock facilities, key personnel will not have ready access to needed information being processed via ADP systems. They will be forced to continue manual methods of input and processing, duplicating existing information, and transporting information by hand and vehicle. Since much of the processed information is directly related to shipload operations, quality service to our customers is jeopardized.

000232

DEPOT MAINTENANCE CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY96/97 President's Budget								
B. Component/Business Area/Date DON/DEPOT MAINT/WPNSTA/				C. Line. No & Description 8/ENGINEERING DEVELOPMENT SUPPORT SYSTEM			D. Activity Identification NOCLANT DIVISION, YORKTOWN					
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
ADP EQUIP							1	150	150	1	110	110
INSTALLATION									15			15
TOTAL									165			125

Narrative Justification: (Replacement)

The engineering development system is required to provide Computer Aided Software Engineering (CASE), Computer Aided Design (CAD), software tools, and interconnectivity support. This system will be used by the engineering staff as the primary support platform for all engineering efforts such as schematic capture, pc board layout, analog and digital circuit simulation.

The majority of both conventional and state-of-the-art engineering support systems requires an automated environment in which to function. In addition, the resource intensive nature of functions such as CAD and CASE as well as the capability to share information amongst engineering design members requires a system capable of providing this interconnectivity and application support in an efficient and cost effective manner. The cost savings will be realized in labor hours. This system is an improvement in methods used for schematic capture, pc board layout, analog and digital circuit simulation.

If this equipment is not acquired, then this support must be provided with existing older technology or from an alternate source resulting in the loss of flexibility and schedule delays that increase the cost of doing business.

000233

DEPOT MAINTENANCE CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)							A. Budget Submission FY96/97 President's Budget					
B. Component/Business Area/Date DON/DEPOT MAINT/WPNSTA/				C. Line. No & Description 10/HIGH SPEED ON LINE DOCUMENT RETRIEVAL SYSTEM			D. Activity Identification NOCLANT DIVISION, YORKTOWN					
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
ADP EQUIP							1	200	200	1	75	75

Narrative Justification: (Replacement)

This document retrieval system will allow on line access to all documentation. This will provide rapid storage and retrieval for all users from a central data base. This system will also reduce the amount of storage space required as well as reducing the number of hours required to manually file these documents.

Acquisition of this document retrieval storage system will save storage space and provide for rapid retrieval and storage of documents. This is the first portion of an effort to modernize document Retrieval at this activity.

Without this system, the Systems Engineering Department must continue to manually retrieve and file documentation. This system is labor intensive and cost prohibitive in this era of reduced budgets and manpower downsizing.

DEPOT MAINTENANCE CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY96/97 President's Budget								
B. Component/Business Area/Date DON/DEPOT MAINT/WPNSTA/				C. Line. No & Description 13/ON LINE MASS STORAGE AND CENTRAL PROCESSOR			D. Activity Identification NOCLANT DIVISION, YORKTOWN					
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
ADP EQUIP							1	150	150	1	150	150

Narrative Justification: (Replacement)

Upgrade to provide on line disk storage capacity of 20 GIGABYTES and up to 20 processors. It will have connectivity to existing Government owned computers. The modification will use the existing Government owned operating systems and FIRMWARE Without additional cost.

Disk requirements increase an average of 5 GIGABYTES per year. This growth equates to capability provided by these new disks.

The lack of sufficient disk capacity results in reduced user service levels which would equate to longer access and retrieval times. The system will be inefficient, requiring more maintenance and increased access time per user.

DEPOT MAINTENANCE CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY96/97 President's Budget								
B. Component/Business Area/Date DON/DEPOT MAINT/NAVORDCEN/				C. Line. No & Description 14/DMRD 924 MIGRATION TO OSE			D. Activity Identification NOCPAC DIVISION, CONCORD					
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
ADP EQUIP							VAR		2,037			

Narrative Justification: (Productivity)

NIMIP/DMRD 924 IMPLEMENTATION: NAVSEA Information Management Improvement Program (NIMIP) was approved by ASN (RD&A) in 1992. NIMIP addresses information management improvements in NAVSEA Headquarters, field organizations, and affiliated PEO and DRPM organizations. The Naval Ordnance Center (NOC) Information Management Improvement Program (NOCIMIP) project is one of five NAVSEA NIMIP activity group projects. NOCIMIP is to migrate selected applications from aging proprietary mainframe computer systems (Bull (Honeywell), UNISYS, and Data General) to open systems environment (OSE) and terminate the existing mainframe operations. The NOC application general categories are: applications in support of direct customers; applications covered by standard initiatives (only deployment costs are planned for the Corporate Naval Ordnance Management Information System (NOMIS) Financial, Integrated Logistics Support Management Information System (ILSMIS) and Standard Labor Data Collection and Distribution Applications (SLDCADA) applications); common NOC mission applications and common NOC support applications. A "Best of Breed" process will be done to select the common NOC applications. NOCIMIP is an application migration program (from proprietary to OSE) and it is not intended to enhance the applications. The result is to release the mainframe computer systems (downsizing) and provide common applications for the NOC activities on OSE platforms.

The funding includes the cost of the new OSE hardware platforms and the cost of migrating the selected applications to the OSE environment. The NOC savings for the NIMIP are identified in its FEAM (functional economic analysis model).

000236

DEPOT MAINTENANCE CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY96/97 President's Budget								
B. Component/Business Area/Date DON/DEPOT MAINT/WPNSTA/				C. Line. No & Description 15/APPLICATIONS SERVER				D. Activity Identification NOCLANT DIVISION, EARLE				
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
ADP EQUIP							1	150	150			

Narrative Justification: (Productivity)

The Information Management Division requires that the file server may be either a SPARC Server or a series of MS-DOS/NT/NOVELL servers depending on the applications selected.

The servers will be required to run Station Unique applications such as, but not limited to, Document Archival and Retrieval, NSN Parts reference system, Government Document reference System, Station Unique Processing System, Station Unique Data Base Server, Ordnance Administrative Software Integrated System (OASIS), and Station Presentation Graphics Generation System. These servers will be placed on the Station Local Area Network (LAN) to act as server computers for any software that a significant savings can be achieved by purchasing a LAN version of the software instead of individual copies.

The servers will be a critical piece in the ability of the Station to down-size and still perform the administrative functions required.

An economic analysis was completed on this project and the following information is provided.

LIFETIME DISCOUNTED SAVINGS ($000)	SAVINGS BEGNS	SAVINGS TO INVESTMENT RATIO (SIR)	PAYBACK PERIOD
1,483	1998	10.89	0.44

0002237

DEPOT MAINTENANCE CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY96/97 President's Budget								
B. Component/Business Area/Date DON/DEPOT MAINT/WPNSTA/				C. Line. No & Description 17/OPT SCAN STOR/RETR SYS W				D. Activity Identification NWA DIVISION, CORONA				
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
ADP EQUIP										1	450	450

Narrative Justification: (Productivity)

The Quality Assessment (QA) Directorate requires an automated system to administer the massive number of documents used by its critical projects. The capabilities required for this automation include the following: optical scanning of documents, text manipulation, graphical image storage and indexing, network interfacing, and workstation access.

To support the many diverse projects managed within the QA Directorate, thousands of documents are processed, reviewed, and stored for future use. These documents encompass direct Fleet support, weapons systems maintenance and performance monitoring, R & D support, program reviews, contractor audits, and DoD training. The review of these documents include validation of content, multiple indexing for future retrieval, extraction of text information for data base storage and retrieval, storage of graphical images for use in engineering studies and monitoring, and transmission to other sponsor sites. The size of these documents varies from one page to reports which are hundreds of pages in length.

QAD sponsors have recognized the need to provide document control and processing support in a more timely and cost effective method. The future decrease in the funding available prohibits the QAD from doing business as usual. Without the automation of document handling, the QAD will not be able to service the needs of our sponsors in support of Fleet information requirements, statistical studies, future systems planning, and training assistance.

An economic analysis was completed on this project and the following information is provided.

LIFETIME DISCOUNTED SAVINGS ($000)	SAVINGS BEGINS	SAVINGS TO INVESTMENT RATIO (SIR)	PAYBACK PERIOD
710	1999	2.58	0.97

000238

DEPOT MAINTENANCE CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY96/97 President's Budget								
B. Component/Business Area/Date DON/DEPOT MAINT/WPNSTA/				C. Line. No & Description 18/SPARC FILE SERVER				D. Activity Identification NOCLANT DIVISION, EARLE				
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
ADP EQUIP										1	150	150

Narrative Justification: (Productivity)

The Information Management Division will require the following piece of equipment. The file server may be either a SPARC Server or a series of MS-DOS/Network Windows/NOVELL servers depending on the applications selected.

The servers will be required to run Station Unique applications such as, but not limited to, Document Archival and Retrieval, NSN Parts reference system, Government Document Reference System, Station Unique Data Base Server, Ordnance Administrative Software Integrated System (OASIS), and Station Presentation Graphics Generation System. These servers will be placed on the Station Local Area Network (LAN) to act as server computers for any software that a significant savings can be achieved by purchasing a LAN version of the software instead of individual copies.

These servers will be a critical piece in the ability of the Station to down-size and still perform the administrative functions required.

An economic analysis was completed on this project and the following information is provided.

LIFETIME DISCOUNTED SAVINGS ($000)	SAVINGS BEGINS	SAVINGS TO INVESTMENT RATIO (SIR)	PAYBACK PERIOD
1,483	1999	10.89	0.44

000239

DEPOT MAINTENANCE CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY96/97 President's Budget								
B. Component/Business Area/Date DON/DEPOT MAINT/WPNSTA/				C. Line. No & Description 20/DATA COMMUNICATIONS 95/96 W			D. Activity Identification NWA DIVISION, CORONA					
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
ADP EQUIP							1	506	506			

Narrative Justification: (New Mission)

Data communications upgrades and expansions to existing networks (both unclassified and secure).

Required by DoD to convert proprietary networks to Open Systems. Equipment requested is required to provide the Command with non-proprietary data communications necessary to meet function and fulfill Fleet requirements. In addition, as more of the data transmission requirements on the network require higher bandwidth the need to upgrade the network to handle higher transmission data rates becomes imperative.

1. If enhancements are not made, network degradation will adversely affect the productivity of the Command and ability to fulfill mission to the Fleet. 2. If conversion to Open systems is not done, this Command will lose capability to communicate with other DoD activities that are converting to open systems integration (OSI). 3. If network data communication transmission speeds are not increased, the Command's ability to assess Fleet performance using modern analysis methods will be impaired severely.

000240

DEPOT MAINTENANCE CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY96/97 President's Budget								
B. Component/Business Area/Date DON/DEPOT MAINT/WPNSTA/				C. Line. No & Description 22/Misc ADP Equip Rep Items < 100K			D. Activity Identification NAVAL ORDNANCE CENTER					
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
ADP EQUIP							VAR		90			

Narrative Justification: (Replacement)

This investment replaces aged ADP equipment that is beyond economical repair and will reduce downtime and maintenance. Examples of the types of ADP equipment purchased are an open systems environment database server and a digital document imaging system.

000241

DEPOT MAINTENANCE CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY96/97 President's Budget								
B. Component/Business Area/Date DON/DEPOT MAINT/WPNSTA/				C. Line. No & Description 26/VIDEO TELECON SYS SB/PAC S 95/97				D. Activity Identification NOCPAC DIVISION, SEAL BEACH				
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
TELECOM EQUIP										1	310	310

Narrative Justification: (Productivity)

Videoconference system will provide WPNSTA Seal Beach with closed circuit TV cameras and monitors for the purpose of conducting meetings, conferences, symposiums, etc. remotely with other sites and activities.

Video communications will allow the WPNSTA Seal Beach sites to communicate effectively with other sites and Commands without travel. Problems can be addressed more quickly and effectively. More frequent meetings can take place making all parties involved more productive.

An economic analysis was completed on this project and the following information is provided.

LIFETIME DISCOUNTED SAVINGS ($000)	SAVINGS BEGINS	SAVINGS TO INVESTMENT RATIO (SIR)	PAYBACK PERIOD
371	1998	2.18	1.28

002242

DEPOT MAINTENANCE CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY96/97 President's Budget								
B. Component/Business Area/Date DON/DEPOT MAINT/WPNSTA/				C. Line. No & Description 27/TLM QUICK TDP W			D. Activity Identification NWA DIVISION, CORONA					
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
TELECOM EQUIP							1	101	101			

Narrative Justification: (New Mission)

Equipment is a telemetry data processor for the Telemetry Ground Station. It will upgrade the capability of the quick-look station, giving it the capability to share the workload of surveying analog tapes, processing simultaneous real time telemetered sources, and adding modern analysis display capabilities.

Building 544 remote battle group exercise support requires additional simultaneous real time data acquisition, analog tape surveys, and modern analysis display capabilities. This equipment will enable this station to perform data acquisition, and improve its ability to handle upcoming high data rate missile telepacks, yielding more efficient data processing. Command funding is the only source for this equipment since the Ground Station supports users with different sponsors. Annual cost savings are estimated at $38,640.

000243

DEPOT MAINTENANCE CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY96/97 President's Budget								
B. Component/Business Area/Date DON/DEPOT MAINT/WPNSTA/				C. Line. No & Description 28/B&L OPEN SYS 96 S			D. Activity Identification NOCPAC DIVISION, SEAL BEACH					
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
OFF THE SHELF SOFTWARE							1	156	156			

Narrative Justification: (New Mission)

Off-the-shelf information manipulation software, storage, network connectivities, and associated data base software to implement Station information manipulation capability for utilization of diverse business information residing on POSIX/GOSIP compliant servers running on an open systems network.

DoD, Navy, and/or NAVSEA are consolidating major business applications to large sites for batch processing. Managers at Seal Beach will need the capability to extract and manipulate data from many different systems located at various sites to create data views necessary to make timely, high quality business decisions to manage Fleet support operation most effectively. The most efficient architecture is to provide, on local servers, software that has the capability to assemble data from many locations into the data views required for decision making, and to do this transparently. Off-the-shelf software and associated hardware components must be compatible with the local environment as well as the larger NAVSEA, Navy, and DoD environment.

If the system is not procured, managers and their support staff will spend inordinate amounts of time extracting and manipulating data from separate applications that may not be compatible or consistent. Quality and efficiency of Fleet support will suffer.

000244

DEPOT MAINTENANCE CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY96/97 President's Budget								
B. Component/Business Area/Date DON/DEPOT MAINT/WPNSTA/				C. Line. No & Description 29/NAVORDCEN EXECUTIVE INFORMATION SYSTEM (EIS)			D. Activity Identification NOC HEADQUARTERS					
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
SOFTWARE DEVELOPMENT							VAR		1,500	VAR		900

Narrative Justification: (Productivity)

The NAVORDCEN EIS will provide NAVORDCEN Management with the ability to pull key information from the host of existing supporting automated management information systems. Currently the information exists in virtual islands. Collection, comparison, analysis and projection must be done manually. The EIS will overlay the existing systems and access selected data by which the critical performance of the NAVORDCEN corporate and division processes can be monitored and analyzed. The EIS will routinely and automatically collect and display HQ NAVORDCEN process indicators and highlight non-conforming processes for management attention. The EIS will also give management the ability to tailor or design special reports for comparisons in order to perform specific or additional analysis. This is a phased project.

Impact if not funded: Management data required by the NAVORDCEN currently resides on a group of fragmented, independent management information systems. Without development of the EIS, the NAVORDCEN will be severely hampered in performing its mission. In this era of infrastructure downsizing, we must be proactive in identifying ways to provide top level managers with automated information tools. The EIS is vital to the NAVORDCEN mission and if not developed will have the NAVORDCEN in a manual mode of assimilating the vast amount of decision making information.

An economic analysis was completed on this project and the following information is provided.

LIFETIME DISCOUNTED SAVINGS ($000)	SAVINGS BEGINS	SAVINGS TO INVESTMENT RATIO (SIR)	PAYBACK PERIOD
2,559	1999	2.71	1.89

DEPOT MAINTENANCE CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY96/97 President's Budget								
B. Component/Business Area/Date DON/DEPOT MAINT/WPNSTA/				C. Line. No & Description 30/STOCKPILE ANALYSIS SOFTWARE			D. Activity Identification NOC HEADQUARTERS					
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
SOFTWARE DEVELOPMENT							VAR		360	VAR		373

Narrative Justification: (Productivity)

With the establishment of the NAVORDCEN as the single focal point for in-service management of the Navy's conventional ordnance, the Stockpile Analysis Group has the task of assessing the adequacy of the worldwide asset stockpile. Since the function of stockpile analysis is new, none of the processes exist to look at the total stockpile from this new perspective. A number of applications will have to be developed to combine, accumulate, assimilate, display and manipulate the plethora of data and data elements. Trends will be established and projections will be made based on "what if" scenarios to provide managers the appropriate and necessary information on which to base current and outyear stockpile decisions. This is a phased project.

Impact if not funded: Without use of this system, the NAVORDCEN would not be able to efficiently and effectively perform the research, review and analysis of the total stockpile. In this era of downsizing and reduced budgets, it is imperative that Navy make the most cost effective choices while still maintaining optimum Fleet readiness. This system would provide managers with a vital tool in performing that analysis across the entire spectrum of ordnance items. Without an automated tool, this function could not be thoroughly performed and incorrect management decisions could be initiated.

An economic analysis was completed on this project and the following information is provided.

LIFETIME DISCOUNTED SAVINGS ($000)	SAVINGS BEGINS	SAVINGS TO INVESTMENT RATIO (SIR)	PAYBACK PERIOD
2,714	1999	8.54	0.42

000246

DEPOT MAINTENANCE CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY96/97 President's Budget								
B. Component/Business Area/Date DON/DEPOT MAINT/WPNSTA/				C. Line. No & Description 31/EXPAND C-1 FOR SECURITY DEPARTMENT				D. Activity Identification NOCLANT DIVISION, EARLE				
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
MINOR CONSTRUCTION												250

Narrative Justification: (Productivity)

The project is the construction of a 880 SF addition to Building C-1. The existing Building is a 2,507 SF one story, concrete masonry block structure with red brick face. The facility is used by the Security Department. The construction will enlarge the Pass and ID office, provide additional office space and a conference room.

The number of security personnel required at NWS Earle has increased over the years and security billets have been added. As a result, the space allocated to these personnel is deficient, currently two personnel work in a trailer next to C-1. There currently exists a BFR deficiency of 443 sf for this category code. Also, there is 437 sf of unusable space in the partial basement which brings the total space deficiency to 880 SF. This addition will correct the space deficiency and ease the overcrowded condition at this facility. This addition will allow for consolidation of operations, and department meetings to update personnel.

The construction of the addition will eliminate the overcrowded conditions in building C-1, thereby increasing the efficiency and response time of the Security Department. It will also improve morale and increase public perception of NWS Earle. Without the addition, overcrowded conditions will persist decreasing efficiency and response time.

An economic analysis was completed on this project and the following information is provided.

LIFETIME DISCOUNTED SAVINGS ($000)	SAVINGS BEGINS	SAVINGS TO INVESTMENT RATIO (SIR)	PAYBACK PERIOD
602	1999	3.41	3.45

42000

DEPOT MAINTENANCE CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY96/97 President's Budget								
B. Component/Business Area/Date DON/DEPOT MAINT/WPNSTA/				C. Line. No & Description 32/EXPAND R-5, W/F SECURITY				D. Activity Identification NOCLANT DIVISION, EARLE				
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
MINOR CONSTRUCTION									260			

Narrative Justification: (Productivity)

The addition will have an area of 700 SF which will provide additional office space for six master of arms, expand the squad room for additional lockers and provide storage space. The addition will be constructed of concrete masonry blocks with a red brick face and a concrete slab foundation.

Building R-5, which has an area of 740 SF, was constructed in 1944 and has never expanded. The waterfront area of NWS Earle has increased in activity since 1990 when a new pier was built and two additional ships were homeported here. The number of security personnel assigned to the waterfront has also increased. The original size of the security building is no longer adequate. Savings would be calculated because there are 3 to 4 trips to the waterfront per night with security personnel responding to incidents at the waterfront.

The project will relieve overcrowded conditions in the waterfront security building. It will improve the efficiency and response time of the security department.

An economic analysis was completed on this project and the following information is provided.

LIFETIME DISCOUNTED SAVINGS ($000)	SAVINGS BEGINS	SAVINGS TO INVESTMENT RATIO (SIR)	PAYBACK PERIOD
402	1998	2.55	6.30

DEPOT MAINTENANCE CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY96/97 President's Budget								
B. Component/Business Area/Date DON/DEPOT MAINT/WPNSTA/				C. Line. No & Description 33/INSTALL PAVED ROADS IN MAGAZINE AREAS			D. Activity Identification NOCLANT DIVISION, YORKTOWN					
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
MINOR CONSTRUCTION									200			200

Narrative Justification: (Environ/Safety)

Install bituminous pavement on all earth covered roads in magazine areas.

Existing roads are earth covered and during severe weather suffer excessive damage. Roads washout, form ruts and potholes and become impassable. As a result the transportation of ordnance explosive materials becomes hazardous.

Installation of an asphalt bituminous surface would eliminate such problems and also reduce annual maintenance costs to keep roads in a safe condition.

000249

DEPOT MAINTENANCE CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY96/97 President's Budget								
B. Component/Business Area/Date DON/DEPOT MAINT/WPNSTA/				C. Line. No & Description 34/LIGHTNING PROTECTION VARIOUS LOCATIONS			D. Activity Identification NOCLANT DIVISION, EARLE					
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
MINOR CONSTRUCTION												240

Narrative Justification: (Environ/Safety)

The project provides a Class 3 open air storage lightning protection system for explosive laden railcars in the classification yard. The proposed work will include the installation of approximately fifty two (52) lightning protection masts connected to a secondary ground girdle.

The project requirement is based on an explosives safety effort to insure that all NAVSEA installations have grounding test plans for each explosives storage facility. By completion of this project NWS Earle will comply with both the NAVSEA grounding and lightning protection handbook and Chapters 5 and 6 of OP-5 and the National Fire Protection Agency standards. This project will cancel the Production Buildings portion of CNO Waiver WPNSTA Earle 1-90.

This project will assure continued explosives storage safety by the implementation of a grounding test plan and compliance with governing NAVSEA guidelines.

000250

DEPOT MAINTENANCE CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY96/97 President's Budget								
B. Component/Business Area/Date DON/DEPOT MAINT/WPNSTA/				C. Line. No & Description 35/PRIMARY GROUNDING - PIER 3					D. Activity Identification NOCLANT DIVISION, EARLE			
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
MINOR CONSTRUCTION												280

Narrative Justification: (Environ/Safety)

The project provides for providing a primary grounding system to protect existing Pier 3. The project will provide for the installation of lightning protection masts, primary girdle, and grounding plates. The primary system will be tied to the secondary system.

Presently, Pier 3 does not have an adequate primary grounding system. Pier 3 currently does not have lightning protection masts and does not provide adequate protection for safe ordnance operations (Pier 3 is the ordnance loading/offloading pier). This project will cancel the Production Buildings portion of CNO Waiver WPNSTA Earle 1-90.

Completion of the project will provide adequate protection against lightning strikes on Pier 3. Without the primary grounding system, ordnance operations on Pier 3 would continue at great risk and in violation of OP-5 criteria.

000251

DEPOT MAINTENANCE CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY96/97 President's Budget								
B. Component/Business Area/Date DON/DEPOT MAINT/WPNSTA/				C. Line. No & Description 36/PROVIDE SECONDARY GROUNDING - PIER 3			D. Activity Identification NOCLANT DIVISION, EARLE					
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
MINOR CONSTRUCTION									280			

Narrative Justification: (Environ/Safety)

The project provides for a secondary grounding system to protect existing Pier 3 the project includes providing ordnance, static, and building grounds. A secondary girdle and grounding plates will also be provided.

Pier 3 has been identified as having inadequate secondary grounding system. This project will provide adequate secondary grounding protection for Pier 3 operations. Pier 3 is an ordnance loading/offloading pier and requires an adequate grounding system to provide safe operations. This project will cancel the Production Buildings portion of CNO Waiver WPNSTA Earle 1-90.

The project will improve safety by providing an up to date secondary grounding system on Pier 3.

252000

DEPOT MAINTENANCE CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY96/97 President's Budget								
B. Component/Business Area/Date DON/DEPOT MAINT/WPNSTA/				C. Line. No & Description 37/SPRINKLER SYSTEMS/FIRE ALARMS			D. Activity Identification NOCLANT DIVISION, EARLE					
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
MINOR CONSTRUCTION												210

Narrative Justification: (Environ/Safety)

The proposed project provides for installing fire sprinkler systems and fire alarms in the following Buildings: C-2, C-14, C-15, C-16, C-21, C-31. The sprinkler system will be a dry pipe system with sprinkler heads.

Fire sprinkler and alarm systems are required in the above buildings. The buildings provide for shop, maintenance, supply, and administrative functions. Sprinklers and alarms will improve the safety conditions in these buildings. This project will bring these bldgs into compliance with National Fire Prevention Association (NFPA) codes and NAVFAC Instr 11320.

Installation of the sprinkler and alarm systems will bring the buildings up to current safety standards and improve the working environment.

000253

DEPOT MAINTENANCE CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY96/97 President's Budget								
B. Component/Business Area/Date DON/DEPOT MAINT/WPNSTA/				C. Line. No & Description 38/Misc Minor Construction Rep Items			D. Activity Identification NAVAL ORDNANCE CENTER					
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
MINOR CONSTRUCTION	--						VAR		335			

Narrative Justification: (Replacement)

This line funds the minor construction and the minor construction portion of projects which are a combination of Maintenance and Repair and minor construction. Examples of these projects include: renovate building C-9 for public works, construct new range facility, construct 3-sided storage building, construct inert storage buildings and replace guard shacks.

000254

DEPOT MAINTENANCE CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY96/97 President's Budget								
B. Component/Business Area/Date DON/DEPOT MAINT/WPNSTA/				C. Line. No & Description 39/Misc Minor Construction Prod Items			D. Activity Identification NAVAL ORDNANCE CENTER					
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
MINOR CONSTRUCTION							VAR		570			

Narrative Justification: (Productivity)

The projects identified provide increased infrastructure support to the stations. Examples of these projects include: construct car wash facility for vehicles and equipment, replace building B-30, construct 3200 SF warehouse B-419 and construct utility building B-311.

An economic analysis was completed on these projects and the following information is provided.

PROJECT	LIFETIME DISCOUNTED SAVINGS	SAVINGS BEGINS	SAVINGS TO INVESTMENT RATIO (SIR)	PAYBACK PERIOD
Car Wash Facility	2,164	1997	22.64	0.0
Replace Building B-30	286	1996	4.18	4.60
Construct 3200 SF warehouse	1,625	1996	21.31	0.73
Construct utility building	293	1996	2.67	6.22

000255

FY 1995 DBOF Capital Program Reconcilliation

FY 1995 DBOF Capital Purchases
Deferrals, Cancellations, Substitutions

The following describes the changes in the Capital Purchase Program from the FY 1995 President's Budget to the FY 1995 column of the FY 1996/1997 President's Budget. The categories are as follows:

a.) Category of purchase/project name, as noted in the FY 1995 President's Budget
b.) Disposition of project: cancellation, deferral and/or substitution
c.) Explanation for cancellation or deferral and substitution

000256

FY 1995 DBOF CAPITAL PURCHASES
DEFERRALS, CANCELLATIONS, SUBSTITUTIONS

NAVAL ORDNANCE CENTER
($ in 000)

1. Other Depot Maintenance - WPNSTA Yorktown
   a. Non-ADPE & Telec. Equipment/Magazine Moveable Aisle Storage Rack — $725
   b. Cancellation and (Non-ADPE & Telec. Equip) Substitution — $413
   c. Cancelled due to Congressional reductions to DBOF capital program.

2. Other Depot Maintenance - NWADIV Corona
   a. Non-ADPE & Telec. Equipment/P-171 Non-ADP Equipment
   b. Reduction/deferral — $76
   c. Project was reduced from $172 to $76 due to Congresssional reductions to DBOF capital program, with $96 deferred to FY 96.

3. Other Depot Maintenance - WPNSTA Concord
   a. ADPE & Telec. Equipment/DMRD 924 Migration to OSE
   b. Reduction — $5,455
   c. Project was reduced from $9460 to $5455 due to Congressional reductions to DBOF capital program.

4. Other Depot Maintenance - WPNSTA Earle
   a. ADPE & Telec. Equipment/CAD Workstation
   b. Reduction — $73
   c. Project was reduced from $75 to $73 due to Congressional reductions to DBOF capital program.

5. Other Depot Maintenance - NWADIV Corona
   a. ADPE & Telec. Equipment/P-171 ADP Equipment
   b. Reduction/deferral — $601
   c. Project was reduced from $1,025 to $ 601 due to Congressional reductions to DBOF capital program, with $340 deferred to FY 96.

000257

FY 1995 DBOF CAPITAL PURCHASES
DEFERRALS, CANCELLATIONS, SUBSTITUTIONS

NAVAL ORDNANCE CENTER
($ In 000)

6. Other Depot Maintenance - WPNSTA Yorktown
   a. ADPE & Telec. Equipment/Telephone System Replacement — $824
   b. Reduction
   c. Project was reduced from $1,446 to $824 due to Congressional reductions to DBOF capital program.

7. Other Depot Maintenance - NWADIV Corona
   a. ADPE & Telec. Equipment/TLM Quick TDP — $101
   b. Deferred
   c. Project has been deferred to FY 96 due to Congressional reductions to DBOF capital program.

8. Other Depot Maintenance - WPNSTA Seal Beach
   a. Off the Shelf Software — $156
   b. Deferred/reduction
   c. Project has been deferred to FY 96 due to Congressional reductions to DBOF capital program and reduced in cost from $188 to $156

000258

FY 1995 DBOF Capital Program Reconciliation

FY 1995 DBOF Capital Purchases
Funding Disposition of Deferrals, Cancellations, Substitutions

The following describes the changes in the Capital Purchase Program from the FY 1995 President's Budget to the FY 1995 column of the FY 1996/1997 President's Budget. The categories are as follows:

a.) Category of purchase/project name, as noted in the FY 1995 President's Budget
b.) Disposition of project: cancellation, deferral and/or substitution
c.) Disposition of related funding

000259

FY 1995 DBOF CAPITAL PURCHASES
DEFERRALS, CANCELLATIONS, SUBSTITUTIONS

FUNDING DISPOSITION
NAVAL ORDNANCE CENTER
($ In 000)

1. Other Depot Maintenance - WPNSTA Yorktown
   a. Non-ADPE & Telec. Equipment/Magazine Moveable Aisle Storage Rack — $725
   b. Cancellation and (Non-ADPE & Telec. Equip) Substitution — $413
   c. N/A. Obligational authority and TOA removed by Congressional action.

2. Other Depot Maintenance - NWADIV Corona
   a. Non-ADPE & Telec. Equipment/P-171 Non-ADP Equipment — $76
   b. Reduction/deferral
   c. N/A. Obligational authority and TOA removed by Congressional action.

3. Other Depot Maintenance - WPNSTA Concord — $5,455
   a. ADPE & Telec. Equipment/DMRD 924 Migration to OSE
   b. Reduction
   c. N/A. Obligational authority and TOA removed by Congressional action.

4. Other Depot Maintenance - WPNSTA Earle
   a. ADPE & Telec. Equipment/CAD Workstation — $73
   b. Reduction
   c. N/A. Obligational authority and TOA removed by Congressional action.

5. Other Depot Maintenance - NWADIV Corona
   a. ADPE & Telec. Equipment/P-171 ADP Equipment — $601
   b. Reduction/deferral
   c. N/A. Obligational authority and TOA removed by Congressional action.

6. Other Depot Maintenance - WPNSTA Yorktown
   a. ADPE & Telec. Equipment/Telephone System Replacement — $824
   b. Reduction
   c. N/A. Obligational authority and TOA removed by Congressional action.

092000

FY 1995 DBOF CAPITAL PURCHASES
DEFERRALS, CANCELLATIONS, SUBSTITUTIONS
FUNDING DISPOSITION
NAVAL ORDNANCE CENTER
($ In 000)

7. Other Depot Maintenance - NWADIV Corona
   a. ADPE & Telec. Equipment/TLM Quick TDP — $101
   b. Deferred
   c. N/A. Obligational authority and TOA removed by Congressional action.

8. Other Depot Maintenance - WPNSTA Seal Beach
   a. Off the Shelf Software — $156
   b. Deferred/reduction
   c. N/A. Obligational authority and TOA removed by Congressional action.

192000 0002261

DEFENSE BUSINESS OPERATIONS FUND
Marine Corps Depot Maintenance
Summary of Operations Narrative

Activity Group Functions:

The maintenance functions performed by the Marine Corps Depot Maintenance (MCDM) Activity Group include the return of unserviceable equipment to a serviceable condition through depot level overhaul, rebuild, modification and Inspect and Repair Only as Necessary (IROAN) of all types of ground combat and combat support equipment used by the Marine Corps and other Department of Defense (DOD) activities. Other functions include performance of related services such as maintenance, inspection, and preservation for in-storage base tactical stocks; quality control services; testing, repair and calibration of electrical, electronic, mechanical, radio and radar equipment. The Marine Corps depots provide calibration support for other military services under interservice support agreements, technical assistance and technical inspection services for Fleet Marine Force (FMF) and Marine Corps Reserve Units.

The mission of MCDM is to provide quality and responsive maintenance and maintenance support services to the FMF and other customers and to maintain a core industrial base to support mobilization and surge requirements. The primary customer of the MCDM is the Marine Corps. Other customers include the Navy, Army, Air Force, Coast Guard, Foreign Military Sales, and other government agencies.

Activity Group Composition:

The Marine Corps Depot Maintenance Activity Group is comprised of two Multi-Commodity Maintenance Centers (MC3s) - one located at Albany, Georgia and the other at Barstow, California. The Marine Corps MC3s maintain virtually identical capabilities in order to provide support for Marine Corps operational units, depending on unit location.

Budget Highlights:

Marine Corps Logistics Bases Depot Maintenance Business Plan
A major effort was recently completed to develop a Marine Corps Logistics Bases Depot Maintenance Business Plan to streamline the two Marine Corps Multi-Commodity Maintenance Centers, to better serve our customers, and develop organizational structure that will serve the Department of Defense (DOD) and usher the Marine Corps through the beginning of the 21st century. The Business Plan was developed with the involvement of a broad segment of management and has been expanded to where it currently enjoys the support of the entire work force and unions. Its implementation requires a total revamp of business practices and a reorganization of both activities.

The implementation of the Marine Corps Business Plan began in October 1994 and will require at least a three year transition period before the plan will be fully implemented. This budget submission reflects initial changes resulting from this plan. The plan impacts the Marine Corps by improving responsiveness/flexibility, and most importantly, the plan impacts all the depot customers by improved communication and product quality through continuous process improvement.

More specifically, the objectives of the Business Plan are to align responsibility/authority/resources for cost, quality, and schedule; bring authority and responsibility closer to the provider of products; improve accountability; remove obstacles which limit capabilities; work for better satisfaction of customer needs; eliminate duplication of functions; minimize process delays; streamline and improve the decision making process; ensure teamwork at all levels; eliminate unnecessary inspections, reports, and projects; maximize agility and responsiveness; and foster total quality leadership (TQL).

Hawk Missile Workload

The transition of the Hawk Missile workload from Marine Corps Logistics Base (MCLB), Barstow to the Army at Letterkenny in FY 1996 will have minimal impact on the Marine Corps as it relates to core and capacity utilization. The shop floor space formerly utilized by the Hawk Missile workload will be utilized to support other core related work.

Interservicing Workload

The MCLB Barstow was selected by a joint U.S. Navy/Coast Guard panel to rebuild the Paxman 16RP200M Valenta diesel engine. This project began in FY 94 and will continue through FY 1996. In addition, the Marine Corps is upgrading the complete night vision sight family to a near hybrid configuration to include assets for the Marine Corps and 3,700 night sights for the Army. Further, the Marine Corps has begun painting Army helicopters, which is additional interservice work over that submitted in the FY 1995 President's Budget. These services, plus many more, hold promise of significant additional workload for the Marine Corps. The Marine Corps interservicing strategy is to continue to interservice its weapon systems when the best value for core maintenance and repair for contingency support requirements is available through an interservicing option. Currently, the Marine Corps interservices approximately ten percent of Marine Corps' depot level maintenance workload.

Civilian and Military End Strength and Workyears

As new orders decline, manning levels will decline. Additionally, supplemental funding received in prior years is being worked off; therefore, carryover levels will be declining

in FY 95 through FY 97. This translates into a reduction of overtime hours and temporary employees.

	FY 94-Actuals	FY 95	FY 96	FY 97
Civilian End Strength	2,150	2,049	1,804	1,744
Total Civilian Workyears	2,164	2,049	1,709	1,744
Military End Strength	17	20	20	20
Total Military Workyears	35	20	20	20

The level of effort for the Marine Corps Depot Maintenance direct labor hours will decline approximately 36.2% from FY 95 to FY 97. In FY 94, the MCDM worked 2,910,854 direct labor hours. Overtime levels are maintained in FY 95 in response to high carryover and increased Congressional funding for reduction of equipment maintenance backlog. Overtime then declines. Military personnel remain constant at 20 end strength.

Unit Cost, Customer Revenue Rate and Customer Rate Changes:

Unit cost for this business area is based on total costs and direct labor hours. Unit cost increases 4.3% from FY 94 to FY 95, 7.3% from FY 95 to FY 96, and 2.4% from FY 96 to FY 97. This is due to fixed costs not declining as rapidly as direct cost and workload. The customer revenue rate increases 34.3% in FY 1995 to recover prior year losses and pay for a surcharge for the Joint Logistics System Center. This rate declines 10.2% in FY 1996 after the one-time increase in FY 1995. The change between FY 1996 and FY 1997 is due primarily to inflation.

	FY 94	FY 95	FY 96	FY 97
Unit Cost	$62.20	$66.49	$70.93	$72.62
Percent Change	--	4.3%	6.7%	2.4%
Customer Revenue Rate (for rate purposes)	$57.66	$77.46	$69.57	$72.16
Percent Change	--	+34.3%	-10.2%	+3.7%
Direct Labor Hours (000s)	2,911	2,898	2,003	1,848

Cost of Goods Sold:

Total costs increase 6.4% from FY 94 to FY 95 and decrease 26.2% in FY 96 and 5.5% in FY 97 due to decreases in workload.

	FY 94	FY 95	FY 96	FY 97
Cost of Goods Sold (Millions)	$181.0	$192.7	$142.1	$134.2

Due to the increase in environmental compliance and safety

issues, the Marine Corps depots are in the midst of increasing their staff within the Environmental/Safety Office. In order to cut hazardous waste generation, creative techniques such as building a recycling plant for wastewater are being adopted. Savings will be realized from the recycling plant as soon as the recycling plant is fully operational.

Performance Measure Indicators:

Measure	Goal	FY 94	FY 95	FY 96	FY 97
Schedule Conformance	100%	97.5%	100%	100%	100%
Quality Deficiency Reports	0.0%	0.4%	0.0%	0.0%	0.0%
Net Operating Results		11.1	19.7	9.5	0.0

Accumulated Operating Results (AOR):

This budget submission reflects a projected AOR gain of $19.7 million in FY 95 and $9.5 million in FY 96. FY 96 and FY 97 reflects a zero AOR balance.

	FY 94	FY 95	FY 96	FY 97
		(Millions)		
Net Operating Results	$11.1	$19.7	$9.5	$0.0
AOR	-$29.2	- $9.5	$0.0	$0.0

Capital Budget:

The total Marine Corps depot maintenance capital investment authority consists of $6.0 million in FY 95, $3.9 million in FY 96 and $6.4 million in FY 97. The budget reflects a reduction from the FY 95 President's Budget due to a change in the expense/investment threshold from $25 thousand to $50 thousand, but is offset by the transfer of certain ADP equipment from the Joint Logistics Systems Center. The increase in FY 1997 is due to the purchase of a terra-aqua system, which is being procured for pollution prevention.

DEFENSE BUSINESS OPERATIONS FUND
DEPARTMENT OF THE NAVY
MARINE CORPS DEPOT MAINTENANCE
REVENUE AND EXPENSES
(Dollars in Millions)

	FY 1994	FY 1995	FY 1996	FY 1997
Revenue:				
Gross Sales	192.4	214.6	152.7	135.3
Operations	188.0	208.5	147.7	130.2
Capital Surcharge	0.0	2.2	1.1	1.1
Depreciation except Maj Const	4.4	3.9	3.9	4.0
Major Construction Depreciation	0.0	0.0	0.0	0.0
Other Income	0.0	0.0	0.0	0.0
Refunds/Discounts (-)	0.0	0.0	0.0	0.0
Total Income	**192.4**	**214.6**	**152.7**	**135.3**
Expenses:				
Cost of Materiel Sold from Inventory	0.0	0.0	0.0	0.0
Negotiated Purchases from Customers	0.0	0.0	0.0	0.0
Transportation	0.6	0.7	0.7	0.7
Salaries and Wages:				
Military Personnel	1.3	1.0	1.0	1.1
Civilian Personnel	97.2	96.0	76.1	77.5
Materials, Supplies and Parts used in Operations	54.1	62.3	39.9	33.1
Facility Repair Charge	2.2	2.6	2.3	2.4
Depreciation - Capital	4.4	3.9	3.9	4.0
Contracted Engineering Services	1.6	1.1	1.0	1.1
Lease Costs	0.0	0.0	0.0	0.0
Purchased Utilities	4.0	4.1	4.0	4.0
Purchased Communications	0.3	0.2	0.2	0.2
Equipment Maintenance	1.4	1.2	1.0	1.0
Fuel	0.3	0.3	0.3	0.3
Other Expenses	13.6	19.3	11.6	8.9
Total Expenses	**181.1**	**192.7**	**142.1**	**134.2**
Operating Result	11.3	21.9	10.6	1.1
Less Capital Surchg Reservation	0.0	2.2	1.1	1.1
Plus Appropriations Affecting NOR/AOR	0.0	0.0	0.0	0.0
Other Changes Affecting NOR/AOR	(0.2)	0.0	0.0	0.0
Net Operating Result	11.1	19.7	9.5	0.0
Prior Year AOR	(40.4)	(29.3)	(9.5)	0.0
Accumulated Operating Result	(29.3)	(9.5)	(0.0)	0.0

BUSINESS AREA ANALYSIS
DEPARTMENT OF THE NAVY
MARINE CORPS DEPOT MAINTENANCE
SOURCE OF REVENUE
(Dollars in Millions)

	FY 1994	FY 1995	FY 1996	FY 1997
1. New Orders	106.6	159.0	150.5	137.7
a. Orders from DoD Components	95.5	141.5	129.0	111.1
Department of the Navy	73.5	130.4	128.9	111.1
Operations and Maintenance, Navy	0.1	0.1	0.1	0.1
Operations and Maintenance, Marine Corps	56.6	123.7	123.4	106.1
O&M, Navy Reserve	0.0	0.0	0.0	0.0
O&M, Marine Corps Reserve	0.7	2.8	2.3	2.2
Aircraft Procurement, Navy	0.0	0.0	0.0	0.0
Weapons Procurement, Navy	0.0	0.0	0.0	0.0
Shipbuilding & Conversion, Navy	0.0	0.0	0.0	0.0
Other Procurement, Navy	0.0	0.0	0.0	0.0
Procurement, Marine Corps	15.5	3.8	3.1	2.6
Family Housing, Navy and Marine Corps	0.0	0.0	0.0	0.0
Research, Development, Test & Eval, Navy	0.5	0.0	0.0	0.0
Military Construction, Navy	0.0	0.0	0.0	0.0
Other Navy Appropriations	0.0	0.0	0.0	0.0
Other Marine Corps Appropriations	0.0	0.0	0.0	0.0
Department of the Army	21.4	11.1	0.0	0.0
Army Operation & Maintenance Accounts	0.0	0.0	0.0	0.0
Army Res, Dev, Test & Eval Accounts	0.0	0.0	0.0	0.0
Army Procurement Accounts	0.0	0.0	0.0	0.0
Army Other	21.4	11.1	0.0	0.0
Department of the Air Force	0.0	0.0	0.0	0.0
Air Force Operation & Maintenance Accounts	0.0	0.0	0.0	0.0
Air Force Res, Dev, Test & Eval Accounts	0.0	0.0	0.0	0.0
Air Force Procurement Accounts	0.0	0.0	0.0	0.0
Air Force Other	0.0	0.0	0.0	0.0
DoD Appropriated Accounts	0.6	0.0	0.2	0.0
Base Closure and Realignment	0.0	0.0	0.0	0.0
Operation & Maintenance Accounts	0.0	0.0	0.0	0.0
Res, Dev, Test & Eval Accounts	0.0	0.0	0.0	0.0
Procurement Accounts	0.0	0.0	0.0	0.0
DoD Other	0.6	0.0	0.2	0.0
b. Orders from DBOF Business Areas	10.6	17.3	21.3	26.3
c. Total DoD	106.1	158.7	150.3	137.5
d. Other Orders	0.6	0.3	0.2	0.2
Other Federal Agencies	0.5	0.2	0.2	0.1
Trust Funds (including FMS)	0.0	0.0	0.0	0.0
Non Federal Agencies	0.1	0.0	0.0	0.1
2. Carry-In Orders	211.6	126.9	71.3	69.1
3. Total Gross Orders (available funding)	318.2	285.9	221.8	206.8
4. Carry-Out Orders	125.8	71.3	69.1	71.5
Change in Backlog (carry-out less carry-in)	(85.8)	(55.6)	(2.2)	2.4
5. Total Gross Sales	192.4	214.6	152.7	135.3

Summary of Price, Program and Other Changes (Operating Budget)
Department of the Navy
MARINE CORPS DEPOT MAINTENANCE
February 1995
($ in Thousands)

	Cost of Operations FY 1994	Price Growth	Program & Other Changes	Cost of Operations FY 1995	Price Growth	Program & Other Changes	Cost of Operations FY 1996	Price Growth	Program & Other Changes	Cost of Operations FY 1997
Military Personnel Compensation	1,342	6	(330)	1,018	24	(1)	1,041	30	21	1,092
Civilian Personnel Compensation	97,180	1,003	(3,610)	94,573	1,917	(20,423)	76,067	2,290	(838)	77,519
Travel	626	9	87	722	11	(13)	720	10	(32)	698
Material & Supplies - Commercial	15,590	437	3,709	19,736	592	(7,555)	12,773	383	(2,299)	10,857
Material & Supplies - from DBOF	38,838	5,935	(497)	44,276	(5,742)	(11,088)	27,446	2,299	(6,807)	22,938
Other Intrafund (DBOF) Purchases	2,300	478	(350)	2,428	(505)	1,077	3,000	192	(292)	2,900
Transportation	0	0	0	0	0	0	0	0	0	0
Capital Investment Depreciation	4,429	0	(525)	3,904	0	(5)	3,899	0	80	3,979
Other Purchases	20,757	168	5,115	26,040	1,359	(10,292)	17,107	513	(3,403)	14,217
Total Operating Budget *	181,062	8,036	3,599	192,697	(2,344)	(48,300)	142,053	5,717	(13,570)	134,200

*Includes Reimbursements

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CHANGES IN THE COSTS OF OPERATION
DEFENSE BUSINESS OPERATIONS FUND
MARINE CORPS DEPOT MAINTENANCE

		EXPENSES
FY 1994 ACTUALS		181.1
FY 1995 ESTIMATE IN PRESIDENT'S BUDGET		164.5
PRICING ADJUSTMENTS:		0.5
A. PAY ADJUSTMENT	0.5	
PRODUCTIVITY INITIATIVES AND OTHER EFFICIENCIES:		-1.1
A. SAVINGS - STANDARDS, IMPROVED RESPONSE TIMES AND PROCESS IMPROVEMENTS	-1.1	
PROGRAM CHANGES:		28.8
A. CIVILIAN PERSONNEL COSTS	9.6	
B. MATERIAL & SUPPLIES	6.6	
C. OTHER PURCHASES	-23.2	
D. DEPRECIATION EXPENSE	1.3	
E. CAPITAL THRESHOLD CHANGE	0.4	
F. CONGRESS BACKLOG REDUCTION	34.1	
FY 1995 CURRENT ESTIMATE		192.7
PRICING ADJUSTMENTS:		-2.9
A. FY 1996 PAY RAISE	1.5	
B. ANNUALIZATION	0.4	
C. MATERIAL CHANGES		
STOCK FUND - NONFUEL	-5.4	
D. OTHER PURCHASES	0.6	
PRODUCTIVITY INITIATIVES AND OTHER EFFICIENCIES:		-1.2
A. SAVINGS - STANDARDS, IMPROVED RESPONSE TIMES AND PROCESS IMPROVEMENTS	-1.2	
PROGRAM CHANGES:		-46.6
A. CIVILIAN PERSONNEL COSTS	-20.4	
B. MATERIAL & SUPPLIES	-17.6	
C. OTHER PURCHASES	-10.2	
D. REDUCTION IN ARMY WORKLOAD	-10.4	
E. BACKLOG REDUCTION	12.0	
FY 1996 CURRENT ESTIMATE		142.0
PRICING ADJUSTMENTS:		5.1
A. FY 1997 PAY RAISE	1.8	
B. ANNUALIZATION	0.5	
C. MATERIAL CHANGES		
STOCK FUND - NONFUEL	2.3	
D. OTHER PURCHASES	0.5	
PROGRAM CHANGES:		-12.9
A. CIVILIAN PERSONNEL COSTS	-0.8	
B. MATERIAL & SUPPLIES	-9.1	
C. OTHER PURCHASES	-3.0	
FY 1997 CURRENT ESTIMATE		134.2

MARINE CORPS DEPOT MAINTENANCE
MATERIAL INVENTORY DATA
(Dollars in Millions)
FISCAL YEAR 1994

	Total	Mobilization	Peacetime Operating	Peacetime Other
1. Materiel Inventory BOP	14.0	0.0	14.0	0.0
2. BOP Reclassification Changes	0.0	0.0	0.0	0.0
3. Price Changes	0.0	0.0	0.0	0.0
4. Receipts from Commercial Sources	46.6	0.0	46.6	0.0
5. Negotiated Purchase from Customers	0.0	0.0	0.0	0.0
6. Gross Sales	48.0	0.0	48.0	0.0
7. Materiel Inventory Adjustments				
A. CAPITALIZATIONS + OR (-)	0.0	0.0	0.0	0.0
B. RETURNS TO SUPPLIERS (-)	0.0	0.0	0.0	0.0
C. TRANSFERS TO PROP. DISP.(-)	0.0	0.0	0.0	0.0
D. ISSUES/RECEIPTS WITHOUT REIMBURSEMENT + or (-)	0.0	0.0	0.0	0.0
E. OTHER (list)	0.0	0.0	0.0	0.0
F. TOTAL ADJUSTMENTS	0.0	0.0	0.0	0.0
8. Materiel Inventory EOP	12.6	0.0	12.6	0.0
A. ECONOMIC RETENTION (memo)				
B. POLICY RETENTION (memo)				
C. POTENTIAL EXCESS (memo)				
D. OTHER (memo)				
9. Materiel Inventory on Order EOP (memo)	3.2	0.0	3.2	0.0

MARINE CORPS DEPOT MAINTENANCE
MATERIAL INVENTORY DATA
(Dollars in Millions)
FISCAL YEAR 1995

	Total	Mobilization	Peacetime Operating	Peacetime Other
1. Materiel Inventory BOP	12.6	0.0	12.6	0.0
2. BOP Reclassification Changes	0.0	0.0	0.0	0.0
3. Price Changes	0.0	0.0	0.0	0.0
4. Receipts from Commercial Sources	50.7	0.0	50.7	0.0
5. Negotiated Purchase from Customers	0.0	0.0	0.0	0.0
6. Gross Sales	53.2	0.0	53.2	0.0
7. Materiel Inventory Adjustments				
A. CAPITALIZATIONS + OR (-)	0.0	0.0	0.0	0.0
B. RETURNS TO SUPPLIERS (-)	0.0	0.0	0.0	0.0
C. TRANSFERS TO PROP. DISP.(-)	0.0	0.0	0.0	0.0
D. ISSUES/RECEIPTS WITHOUT REIMBURSEMENT + or (-)	0.0	0.0	0.0	0.0
E. OTHER (list)	0.0	0.0	0.0	0.0
F. TOTAL ADJUSTMENTS	0.0	0.0	0.0	0.0
8. Materiel Inventory EOP	10.1	0.0	10.1	0.0
A. ECONOMIC RETENTION (memo)				
B. POLICY RETENTION (memo)				
C. POTENTIAL EXCESS (memo)				
D. OTHER (memo)				
9. Materiel Inventory on Order EOP (memo)	2.5	0.0	2.5	0.0

MARINE CORPS DEPOT MAINTENANCE
MATERIAL INVENTORY DATA
(Dollars in Millions)
FISCAL YEAR 1996

	Total	Mobilization	Peacetime Operating	Peacetime Other
1. Materiel Inventory BOP	10.1	0.0	10.1	0.0
2. BOP Reclassification Changes	0.0	0.0	0.0	0.0
3. Price Changes	0.0	0.0	0.0	0.0
4. Receipts from Commercial Sources	34.7	0.0	34.7	0.0
5. Negotiated Purchase from Customers	0.0	0.0	0.0	0.0
6. Gross Sales	34.9	0.0	34.9	0.0
7. Materiel Inventory Adjustments				
A. CAPITALIZATIONS + OR (-)	0.0	0.0	0.0	0.0
B. RETURNS TO SUPPLIERS (-)	0.0	0.0	0.0	0.0
C. TRANSFERS TO PROP. DISP.(-)	0.0	0.0	0.0	0.0
D. ISSUES/RECEIPTS WITHOUT REIMBURSEMENT + or (-)	0.0	0.0	0.0	0.0
E. OTHER (list)	0.0	0.0	0.0	0.0
F. TOTAL ADJUSTMENTS	0.0	0.0	0.0	0.0
8. Materiel Inventory EOP	9.9	0.0	9.9	0.0
A. ECONOMIC RETENTION (memo)				
B. POLICY RETENTION (memo)				
C. POTENTIAL EXCESS (memo)				
D. OTHER (memo)				
9. Materiel Inventory on Order EOP (memo)	2.5	0.0	2.5	0.0

MARINE CORPS DEPOT MAINTENANCE
MATERIAL INVENTORY DATA
(Dollars in Millions)
FISCAL YEAR 1997

	Total	Mobilization	Peacetime Operating	Peacetime Other
1. Materiel Inventory BOP	9.9	0.0	9.9	0.0
2. BOP Reclassification Changes	0.0	0.0	0.0	0.0
3. Price Changes	0.0	0.0	0.0	0.0
4. Receipts from Commercial Sources	29.7	0.0	29.7	0.0
5. Negotiated Purchase from Customers	0.0	0.0	0.0	0.0
6. Gross Sales	29.7	0.0	29.7	0.0
7. Materiel Inventory Adjustments				
A. CAPITALIZATIONS + OR (-)	0.0	0.0	0.0	0.0
B. RETURNS TO SUPPLIERS (-)	0.0	0.0	0.0	0.0
C. TRANSFERS TO PROP. DISP.(-)	0.0	0.0	0.0	0.0
D. ISSUES/RECEIPTS WITHOUT REIMBURSEMENT + or (-)	0.0	0.0	0.0	0.0
E. OTHER (list)	0.0	0.0	0.0	0.0
F. TOTAL ADJUSTMENTS	0.0	0.0	0.0	0.0
8. Materiel Inventory EOP	9.9	0.0	9.9	0.0
A. ECONOMIC RETENTION (memo)				
B. POLICY RETENTION (memo)				
C. POTENTIAL EXCESS (memo)				
D. OTHER (memo)				
9. Materiel Inventory on Order EOP (memo)	2.5	0.0	2.5	0.0

DEFENSE BUSINESS OPERATIONS FUND
MARINE CORPS DEPOT MAINTENANCE
SUMMARY OF CAPITAL PURCHASES

DOLLARS IN MILLIONS

LINE NUMBER	ITEM DESCRIPTION	FY 1994 ESTIMATE QUANTITY	FY 1994 ESTIMATE TOTAL COST	FY 1995 ESTIMATE QUANTITY	FY 1995 ESTIMATE TOTAL COST	FY 1996 ESTIMATE QUANTITY	FY 1996 ESTIMATE TOTAL COST	FY 1997 ESTIMATE QUANTITY	FY 1997 ESTIMATE TOTAL COST
	1A. EQUIPMENT PURCHASES OVER $500K								
_001	REPLACEMENT (BORE JIG)							1	0.6
_002	PRODUCTIVITY								
_003	NEW MISSION (TERRA-AQUA)	1	1.1					1	2.5
	Subtotal	1	1.1	0	0.0	0	0.0	2	3.1
	1B. EQUIPMENT >$50K <$500K								
_004	REPLACEMENT	4	0.5	12	1.4	8	1.2	8	1.1
_005	PRODUCTIVITY	5	0.4	5	0.5			1	0.3
_006	NEW MISSION	7	0.6	1	0.2	4	0.5	1	0.1
	Subtotal	16	1.5	18	2.1	12	1.7	10	1.5
	1C. INFO MGT EQUIPMENT > $100K								
_007	REPLACEMENT								
_008	PRODUCTIVITY								
_009	NEW MISSION (DATA SYSTEMS HARDWARE)			1	2.8	1	0.2		
	Subtotal	0	0.0	1	2.8	1	0.2	0	0.0
	1D. INFO MGT EQUIPMENT >$50K <100K								
_010	REPLACEMENT								
_011	PRODUCTIVITY								
_012	NEW MISSION								
	Subtotal	0	0.0	0	0.0	0	0.0	0	0.0
	SUBTOTAL ALL EQUIPMENT CATEGORIES	17	2.6	19	4.9	13	1.9	12	4.6

000274

DEFENSE BUSINESS OPERATIONS FUND
MARINE CORPS DEPOT MAINTENANCE
SUMMARY OF CAPITAL PURCHASES

DOLLARS IN MILLIONS

LINE NUMBER	ITEM DESCRIPTION	FY 1994 ESTIMATE QUANTITY	FY 1994 ESTIMATE TOTAL COST	FY 1995 ESTIMATE QUANTITY	FY 1995 ESTIMATE TOTAL COST	FY 1996 ESTIMATE QUANTITY	FY 1996 ESTIMATE TOTAL COST	FY 1997 ESTIMATE QUANTITY	FY 1997 ESTIMATE TOTAL COST
	SUBTOTAL ALL EQUIPMENT CATEGORIES	17	2.6	19	4.9	13	1.9	12	4.6
	2. MINOR CONSTRUCTION >$50K <$300								
_013	REPLACEMENT			7	0.8				
_014	PRODUCTIVITY					3	0.4	4	0.7
_015	NEW MISSION	7	0.5	1	0.3	9	1.6	6	1.1
	Subtotal	7	0.5	8	1.1	12	2.0	10	1.8
	3A. SOFTWARE >$100K								
_016	REPLACEMENT								
_017	PRODUCTIVITY								
_018	NEW MISSION								
	Subtotal	0	0.0	0	0.0	0	0.0	0	0.0
	3B. SOFTWARE >$50K <$100K								
_019	REPLACEMENT								
_020	PRODUCTIVITY								
_021	NEW MISSION								
	Subtotal	0	0.0	0	0.0	0	0.0	0	0.0
	TOTAL	24	3.1	27	6.0	25	3.9	22	6.4

S22000

DEFENSE BUSINESS OPERATIONS FUND
MARINE CORPS DEPOT MAINTENANCE
MARINE CORPS CAPITAL PURCHASES PROGRAM
JUSTIFICATION SHEET
(DOLLARS IN THOUSANDS)

	A. BUDGET SUBMISSION
B. INDUSTRIAL FUND/ACTIVITY GROUP/ACTIV MARINE CORPS INDUSTRIAL FUND/DEPOT MAINT	1A. EQUIPMENT PURCHASES OVER $500K (REPLACEMENT)

	FY 1996 ESTIMATE			FY 1997 ESTIMATE		
	QTY	UNIT COST	TOTAL COST	QTY	UNIT COST	TOTAL COST
EQUIPMENT PURCHASES GREATER THAN $500K						
BORING MACHINE: JIG, VERTICAL				1	635	635

NARRATIVE JUSTIFICATION:

THE BORING MACHINE, JIG, VERTICAL, IS A REPLACEMENT ITEM AND WILL REPLACE A 48 YEAR OLD MACHINE. THIS MACHINE IS REQUIRED FOR EXTREMELY CLOSE TOLERANCE WORK ON TOOLS, DIES, AND FIXTURES FOR PRODUCTION SUPPORT OF VIRTUALLY EVERY COMMODITY WORKED BY THE MAINTENANCE CENTER. IT IS REQUIRED FOR CLOSE TOLERANCE REPAIR AND FRABRICATION OF COMPONENTS OF MANY DIFFERENT PIECES OF EQUIPMENT SUCH AS ANTENNA PEDESTAL BASES FOR THE HAWK MISSILE SYSTEM
AN ECONOMIC ANALYSIS WAS PERFORMED THAT SHOWED AN ANNUAL SAVINGS OF $13,296.

972000

DEFENSE BUSINESS OPERATIONS FUND
MARINE CORPS DEPOT MAINTENANCE
MARINE CORPS CAPITAL PURCHASES PROGRAM
JUSTIFICATION SHEET
(DOLLARS IN THOUSANDS)

	A. BUDGET SUBMISSION
B. INDUSTRIAL FUND/ACTIVITY GROUP/ACTIV MARINE CORPS INDUSTRIAL FUND/DEPOT MAINT	1A. EQUIPMENT PURCHASES OVER $500K (NEW MISSION)

	FY 1996 ESTIMATE			FY 1997 ESTIMATE		
	QTY	UNIT COST	TOTAL COST	QTY	UNIT COST	TOTAL COST
EQUIPMENT PURCHASES GREATER THAN $500K						
TERRA-AQUA ENVIRONMENTAL SYSTEM				1	2,500	2,500

NARRATIVE JUSTIFICATION:

MARCORLOGBASES STRATEGIC PLAN CALLS FOR IMPROVED INDUSTRIAL AND PERFORMANCE PROCESSES TO ACHIEVE MAXIMUM REDUCTION OF HAZARDOUS MATERIALS AND EXPLOIT ALL OPPORTUNITIES FOR POLLUTION PREVENTION. THE TERRA-AQUA SYSTEM MUST BE PROCURED IN FY 97 TO MEET THIS GOAL. THIS SYSTEM REQUIRES FROM 12 TO 18 MONTHS TO INSTALL AND MUST BE OPERATIONAL BY FY 99 TO COMPLY WITH MAXIMUM AVAILABLE CONTROL TECHNOLOGY REQUIRED BY AIR CONTROL ACT AMENDMENTS.

002277

DEFENSE BUSINESS OPERATIONS FUND
MARINE CORPS DEPOT MAINTENANCE
MARINE CORPS CAPITAL PURCHASES PROGRAM
JUSTIFICATION SHEET
(DOLLARS IN THOUSANDS)

A. BUDGET SUBMISSION
B. INDUSTRIAL FUND/ACT GRP/ACTIVITY MARINE CORPS INDUSTRIAL FUND/DEPOT MAINT
1B. EQUIPMENT >$50K <$500K (REPLACEMENT)

	FY 1996 ESTIMATE			FY 1997 ESTIMATE		
	QTY	UNIT COST	TOTAL COST	QTY	UNIT COST	TOTAL COST
REPLACEMENT EQUIPMENT GREATER THAN 50K AND LESS THAN $500K	8		1,245	8		1,095

NARRATIVE JUSTIFICATION:

FUNDING WILL BE USED TO PROCURE REPLACEMENTS FOR OUTDATED, UNUSABLE AND UNSAFE ITEMS OF EQUIPMENT THAT ARE NECESSARY TO SUSTAIN THE MISSION OF THE MC3'S.

REPLACEMENT ITEMS FOR FY 96 INCLUDE: AS21-A COUNTER CALIBRATION SYSTEM, AUTOPRESS CALIBRATION SYSTEM, 230 TON HYDRAULIC PRESS BRAKE, PRIMARY FREQUENCY STANDARD, MILLING MACHINE, SIGNAL GENERATOR AND OFF AXIS TARGET PROJECTOR.

REPLACEMENT ITEMS FOR FY 97 INCLUDE: DUST COLLECTOR, AIR CONDITIONER FOR SHOP 732, SYNTHESIZED SIGNAL GENERATOR, ELECTRO OPTICS TEST STATION, COMPUTER AIDED GRAPHICS SYSTEM, KPS003 TEST BENCH, DRILLING MACHINE, AUTOMATIC LASER TEST SYSTEM AND NETWORK ANALYZER.

842000

DEFENSE BUSINESS OPERATIONS FUND
MARINE CORPS DEPOT MAINTENANCE
MARINE CORPS CAPITAL PURCHASES PROGRAM
JUSTIFICATION SHEET
(DOLLARS IN THOUSANDS)

A. BUDGET SUBMISSION	
B. INDUSTRIAL FUND/ACT GRP/ACTIVITY MARINE CORPS INDUSTRIAL FUND/DEPOT MAINT	1B. EQUIPMENT >$50K <$500K (PRODUCTIVITY)

	FY 1996 ESTIMATE			FY 1997 ESTIMATE		
	QTY	UNIT COST	TOTAL COST	QTY	UNIT COST	TOTAL COST
AUTOMATED STORAGE AND RETRIEVAL SYSTEM				1		255

NARRATIVE JUSTIFICATION:

A TIME STUDY INDICATED THAT DIRECTED EMPLOYEES SPENT AT LEAST 7% OF THEIR TIME ACCOMPLISHING NON-PRODUCTIVE, INDIRECT TASKS, I.E. LOOKING FOR PARTS, MOVING PARTS, ETC. IMPLEMENTATION OF THIS SYSTEM WILL REDUCE OR ELIMINATE THIS NON-PRODUCTIVE TIME. OUR ESTIMATES CALL FOR A 3.2% INCREASE IN PRODUCTIVITY BASED ON A LOSS OF 3200 HOURS PER YEAR LOOKING FOR LOST ITEMS OR MISPLACED ITEMS. INVESTING IN THIS SYSTEM WILL ENABLE THE MAINTENANCE CENTER TO REBUILD MORE EQUIPMENT WITHOUT INCREASING LABOR COSTS AND REDUCE DIRECT MATERIAL AND OVERHEAD EXPENSES BY IMPROVING INVENTORY ACCURACY AND ENSURING THAT PARTS ARE AVAILABLE FOR JOBS AS NEEDED.

000279

DEFENSE BUSINESS OPERATIONS FUND
MARINE CORPS DEPOT MAINTENANCE
MARINE CORPS CAPITAL PURCHASES PROGRAM
JUSTIFICATION SHEET
(DOLLARS IN THOUSANDS)

	A. BUDGET SUBMISSION
B. INDUSTRIAL FUND/ACT GRP/ACTIVITY MARINE CORPS INDUSTRIAL FUND/DEPOT MAINT	1B. EQUIPMENT >$50K <$500K (NEW MISSION)

	FY 1996 ESTIMATE			FY 1997 ESTIMATE		
	QTY	UNIT COST	TOTAL COST	QTY	UNIT COST	TOTAL COST
NEW MISSION EQUIPMENT GREATER THAN 50K AND LESS THAN $500K	4		490	1		150

NARRATIVE JUSTIFICATION:

NEW EQUIPMENT FOR FY 96 INCLUDES:

HORIZONTAL PARTS RETRIEVERS: THIS ITEM WILL BE PROCURED FOR VARIOUS SHOPS IN THE MAINTENANCE CENTERS. THESE LABOR SAVING DEVICES WILL ALLOW MORE EFFICIENT AND EFFECTIVE UTILIZATION OF PERSONNEL RESOURCES.

GC SPECTROMOMETER: THIS ITEM IS USED IN THE CHEMICAL LAB TO ANALYZE VARIOUS SUBSTANCES FOR HAZARDOUS MATERIALS AND ENVIRONMENTAL POLLUTANTS.

DIT-MCO BACKPLANE TESTER: THIS EQUIPMENT IS USED IN SUPPORT OF THE AN/TTC42 BACKPLANE AND THE SB 3865 THE SB 3865 BACKPLANE. THIS DIAGNOSTIC TOOL IS THE ONLY MEANS OF TESTING BACKPLANES (NESTS) FOR CIRCUIT CARDS.

NEW EQUIPMENT FOR FY 97 INCLUDES:

HP 85301 B/X ANTENNA MEASURING SYSTEM: THIS EQUIPMENT SUPPORTS THE ELECTRO-MAGNETIC ENVIRONMENTAL EFFECTS (E3) TEST SHELTER. IT IS USED IN ANALYZING/ DIAGNOSING/TROUBLE-SHOOTING PROBLEMS WITH COMM/ELECT EQUIPMENT.

000280

DEFENSE BUSINESS OPERATIONS FUND
MARINE CORPS DEPOT MAINTENANCE
MARINE CORPS CAPITAL PURCHASES PROGRAM
JUSTIFICATION SHEET
(DOLLARS IN THOUSANDS)

A. BUDGET SUBMISSION	
B. INDUSTRIAL FUND/ACT GRP/ACTIVITY MARINE CORPS INDUSTRIAL FUND/DEPOT MAINT	1C. INFO MGNT EQUIPMENT > $100K (NEW MISSION)

	FY 1995 ESTIMATE			FY 1996 ESTIMATE			FY 1997 ESTIMATE		
	QTY	UNIT COST	TOTAL COST	QTY	UNIT COST	TOTAL COST	QTY	UNIT COST	TOTAL COST
INFORMATION MGNT EQUIP > $100K	1		2,831	1		235			

NARRATIVE JUSTIFICATION:

THESE FUNDS ARE TO SUPPORT THE FIELDING OF THE DEPOT MAINTENANCE STANDARD SYSTEM (DMSS) BEING DEVELOPED BY THE JOINT LOGISTICS SYSTEMS CENTER (JLSC) FOR MARINE CORPS MAINTENANCE DEPOTS. DURING RECENT REVIEWS, THE RESPONSIBILITY FOR ACQUISITION OF HARDWARE WAS TRANSFERRED FROM THE JLSC TO THE MILITARY SERVICES.

OVER THE PAST TWO YEARS, THE JLSC, WORKING WITH THE SERVICES HAS EVALUATED THE BUSINESS PROCESSES OF THE DEPOTS, INVESTIGATED ALTERNATIVE MAINTENANCE MANAGEMENT CONCEPTS AND REVIEWED THE SERVICES LEGACY ENVIRONMENT, DEPOT AIS DEVELOPMENT EFFORTS AND COMMERICALLY AVAILABLE SYSTEMS. THESE EFFORTS HAVE SUSTAINED THE NEED TO MODERNIZE THE PLATFORMS AND HARDWARE REPRESENTED BY THIS SUBMITTAL, BUT HAVE NOT IDENTIFIED SPECIFIC EQUIPMENT REQUIREMENTS FOR THE MARINE CORPS. THE IDENTIFICATION OF APPROPROPRIATE EQUIPMENT, MAKE, MODEL, AND INSTALLATION DATE ARE JLSC INITIATIVES AND ARE NOT AVAILABLE. OBLIGATION IS DEPENDENT ON APPROVAL/RELEASE OF FUNDS FROM JLSC AND DISA.

DMSS WILL PROVIDE THE SERVICES A REVOLUTIONARY STEP FORWARD IN FUNTIONAL CAPABILITY AND AUTOMATION, INCLUDING A SYSTEMS INFRASTRUCTURE UPON WHICH TO MAKE SIGNIFICANT STRIDES IN BUSINESS PROCESS IMPROVEMENT. BENEFITS WILL BE REALIZED IN TWO PRIMARY AREAS: BUSINESS PERFORMANCE AND INFORMATION SYSTEMS COSTS. BUSINESS PERFORMANCE WILL BE ENHANCED THROUGH THE PROCESS IMPROVEMENT DELIVERED BY DMSS APPLICATIONS TO SUPPORT THE DEPOT MAINTENANCE IMPROVED FUNCTIONAL BASELINE (IFB).

THESE IMPROVEMENTS INCLUDE:
- REDUCED INVENTORIES THROUGH IMPROVED PLANNING AND TRACKING
- REDUCED LABOR THROUGH BETTER RESOURCE AND WORK PLANNING
- REDUCED OVERHEAD THROUGH AUTOMATION AND THE ELIMINATION OF NON VALUE-ADDED ACTIVITY
- SHORTER CYCLE TIMES THROUGH BETTER PLANNING AND MANAGEMENT INFORMATION TO CONTROL OPERATIONS
- IMPROVED SCHEDULE PERFORMANCE THROUGH MORE COMPLETE ASSET VISIBILITY
- ONCE IMPLEMENTATION IS COMPLETE, AND LEGACY APPLICATIONS ARE REDUCED OR ELIMINATED, ADP COSTS WILL DECLINE MARKEDLY.

WITHOUT THIS INVESTMENT, NEEDED IMPROVEMENTS TO THE DEPOT BUSINESS PROCESS AND INFRASTRUCTURE WILL NOT BE ACHIEVED. IMPLEMENTING ENHANCED REPAIR AND OVERHAUL CAPABILITIES IS A CRITICAL CONTRIBUTION TOWARD IMPROVING MISSION READINESS IN A DOWNSIZING ENVIRONMENT. AS THE DOD WEAPON SYSTEMS CONTINUE TO AGE, REDUCTIONS TO THE WORKFORCE CONTINUE AND THE NUMBER OF DEPOTS ARE REDUCED, EFFICIENT AND EFFECTIVE ORGANIC REPAIR CAPABILITY IS OF INCREASINGLY GROWING IMPORTANCE TO DOD IN MAINTAIN WEAPON SYSTEMS COMBAT READINESS. IN ORDER TO MEET THIS DEMAND, THE DEPOT COMMUNITY NEEDS TO DRASTICALLY STRENGTHEN ITS BUSINESS PROCESSES AND THE ASSOCIATED INFORMATION INFRASTRUCTURE (HARDWARE).

000281

DEFENSE BUSINESS OPERATIONS FUND
MARINE CORPS DEPOT MAINTENANCE
MARINE CORPS CAPITAL PURCHASES PROGRAM
JUSTIFICATION SHEET
(DOLLARS IN THOUSANDS)

	A. BUDGET SUBMISSION
B. INDUSTRIAL FUND/ACTIVITY GROUP/ACTIV MARINE CORPS INDUSTRIAL FUND/DEPOT MAINT	2. MINOR CONSTRUCTION >$50K <$300K (ALL CATEGORIES)

	FY 1996 ESTIMATE			FY 1997 ESTIMATE		
	QTY	UNIT COST	TOTAL COST	QTY	UNIT COST	TOTAL COST
MINOR CONSTRUCTION GREATER THAN 50K AND LESS THAN 300K	12		1,967	10		1,856

NARRATIVE JUSTIFICATION:

THE FOLLOWING PROJECTS ARE VITAL TO OUR CONTINUING EFFORT TO PROVIDE A MORE EFFICIENT AND SAFE WORKPLACE.

* CONSTRUCT STORAGE BUILDING AT RADAR SHOPS FOR WORKLOAD AND TESTING OF RADAR SYSTEMS REQUIRED TO PROTECT PERSONNEL AND GOVERNMENT PROPERTY.
* CONSTRUCT ORDNANCE MAINTENANCE BUILDING TO MEET OSHA STANDARDS FOR WORKERS SAFETY.
* CONSTRUCT A MAINTENANCE FACILITY TO PROVIDE BETTER RESPONSE AND REPAIR TO A WIDE VARIETY OF PRODUCTION RELATED MACHINERY.
* CONSTRUCT ADMIN FACILITY TO CENTRALLY LOCATE ALL MANAGEMENT SERVICES.
* CONSTRUCT NEW STORAGE FACILITY TO REPLACE LIKE FACILITIES THAT HAVE BEEN CONVERTED TO PRODUCTIVE SHOP AREAS.
* CONSTRUCT NEW PAINT BOOTHS
* CONSTRUCT FIRE BOTTLE STATION
* CONSTRUCT ADDITIONAL CONCRETE HARD STANDS
* CONSTRUCT LAV TEST STAND - THIS SHOP IS REQUIRED TO MOVE BECAUSE THE NOISE LEVEL GENERATED BY THIS SHOP EXCEEDS THE EPA THRESHOLD FOR NOISE.

000282

FY 1995 CAPITAL PROGRAM RECONCILIATION

BUSINESS AREA: MARINE CORPS DEPOTS

There are no significant changes in the FY 1995 Capital Program since the FY 1995 President's Budget submission.

000283

DEPARTMENT OF THE NAVY
DEFENSE BUSINESS OPERATIONS FUND
TRANSPORTATION - NAVY

ACTIVITY GROUP FUNCTION:

The Military Sealift Command (MSC) has two major missions. One is as the Transportation Component Command (TCC) for sealift to the Commander in Chief, U.S. Transportation Command; the budget for this mission is included in the Transportation business area of the Defense Business Operations fund controlled by TRANSCOM. The second major mission is as the Navy Type Commander for a number of Service Unique vessels operated as Naval Fleet Auxiliary Force (NFAF) vessels, Special Mission Ships (SMS) and Navy Funded Preposition Forces (APF-N). NFAF provides support utilizing civilian manned non-combatant ships for material support, SMS provides unique seagoing platforms to the military services, and APF-N deploys advance material for strategic lifts. The justification material below is submitted in support of the Navy portion of MSC's transportation mission.

ACTIVITY GROUP COMPOSITION:

Military Sealift command, headquartered in Washington, DC is composed of five commands located in Bayonne, New Jersey; Oakland, California; London, England; Yokohama, Japan and Washington, DC. In addition, MSC has three subarea commands in Norfolk, Virginia; Naples, Italy; Guam and eight port offices.

BUDGET HIGHLIGHTS:

Financial Profile:

	($ millions)			
	FY 1994	FY 1995	FY 1996	FY 1997
Revenue	832.6	1,101.6	1,264.1	1,275.8
Expenses	720.6	1,120.8	1,237.3	1,257.4
Surcharge	-	-	14.6	18.4
Net Operating Result	111.9	-7.6	12.2	0
Prior Year Adjustments	232.6			
Accumulated Operating Result	-4.7	-12.2	0	0

Naval Fleet Auxiliary Force

The Naval Fleet Auxiliary Force (NFAF) provides civilian manned noncombatant support ships to the U.S. Navy in the fields of underway replenishment of fuel, underway replenishment of stores and supplies, underway replenishment of ammunition, towing and salvage operations, and resupply of ballistic missiles. In addition, miscellaneous time charters are provided to support harbor tug requirements, deep submergence vehicle support/rescue requirements, and miscellaneous towing requirements. The NFAF continues to expand at a significant rate. From FY 1994 through FY 1997 the NFAF will convert two T-AFS 1 Class supply ships and five T-AE 26 Class ammunition ships and three T-ATS 1 Class salvage vessels to civilian marine operations. Additionally, during this period the NFAF will gain three T-AO 187 Class fleet

oilers from the new construction program. This budget also includes the transfer of three T-AGOS 1 Class undersea surveillance ships to other government agencies and the deactivation of three T-AGOS, the deactivation/transfer of three T-AO 187 Class fleet oilers, the deactivation of a T-AK Class fleet ballistic missile ship, the placement of two T-AO 187 Class fleet oilers in Reduced Operating Status (ROS) in FY 1994 through FY 1997, the placement of two T-AFS 1 Class fleet stores ships in ROS for portions of FY 1996 and FY 1997, and the activation and operation of two T-LKAs starting in FY 1996.

	FY 1994	FY 1995	FY 1996	FY 1997
NFAF				
Per Diem Days	15,638	14,823	14,612	15,757
Unit Cost	37,006	40,903	48,015	45,459
Customer Rate Changes			3.6%	0.5%
Performance Indicator:				
Ship Availability	96.1%	99.9%	99.9%	99.9%

Special Mission Ships

Special Mission Ships (SMS) program provides support for various specialized scientific and technical missions: oceanographic research, missile tracking, oceanographic/hydrographic surveys and cable laying/repairing. From FY 1994 through FY 1997 the SMS program will deactivate three T-AGSs (survey), one T-AGM (missile range) and one T-ARC (cable). This is offset partially by the addition of three new construction T-AGSs and the chartering of a T-ASR (submarine rescue).

	FY 1994	FY 1995	FY 1996	FY 1997
SMS				
Per Diem Days	4,852	4,480	4,669	4,380
Unit Cost	25,907	28,382	27,458	28,470
Customer Rate Changes			-.9%	9.3%
Performance Indicator:				
Ship Availability	98.9%	99.9%	99.9%	99.9%

Afloat Prepositioning Force

The Navy portion of the Afloat Prepositioning Force (APF) transfers from the TRANSCOM budget to the Navy budget in FY 1995, as reflected in the FY 1995 President's Budget. The Navy portion of the APF consists of sixteen vessels located at strategic locations for rapid response to regional conflicts. There are two hospital ships (T-AHs) located in Baltimore, MD and Oakland, CA; thirteen Maritime Prepositioned Ships (MPS) located at Diego Garcia, Guam/Saipan and the Atlantic Ocean. Also included in this program is the fleet hospital ship STRONG VIRGINIAN. The support of the Medical Treatment Facility (MTF) on board the two hospital ships is included and treated as a reimbursable item, i.e., not part of the daily rate. The Pacific Fleet also funds support for Diego Garcia services (pusher tugs etc.) through

this program. This budget also assumes buyout of the shipowners' equity in one ship per year beginning in FY 1996, with funding to be provided from the National Defense Sealift Fund (NDSF) of approximately $50 million per vessel. Expenses are computed based on this buyout occurring at mid-year of each fiscal year.

	FY 1994	FY 1995	FY 1996	FY 1997
APF-N				
Per Diem Days	-	5,840	5,856	5,840
Unit Cost	-	63,836	66,581	68,664
Customer Rate Changes			17.8%	-0.4%
Performance Indicator:				
Ship Availability	-	99.9%	99.9%	99.9%

STAFFING:

	FY 1994	FY 1995	FY 1996	FY 1997
Civilian				
End Strength	4,660	4,924	5,383	5,497
Workyears	5,319	5,044	5,185	5,386
Military				
End Strength	891	1,081	1,216	1,296
Workyears	880	1,071	1,147	1,207

Personnel growth from FY 1994 to FY 1995 is due primarily to the transfer of APF Navy unique ships from TRANSCOM and the addition of one T-AE. Growth from FY 1995 to FY 1996 supports the addition of two T-LKAs, two T-AEs, one T-ATS and full year operation of one T-AE. Increases from FY 1996 to FY 1997 are attributable to the addition of two more T-AEs, one T-ATS, and full year operation of two T-LKAs and two T-AEs.

HEADQUARTERS COSTS:

	FY 1994	FY 1995	FY 1996	FY 1997
Headquarters	21.6	18.5	22.0	22.4

Increases in headquarters costs over the FY 1995 level are primarily attributable to inflation and centralization of certain ADP costs which were previously budgeted in the area field commands. It is anticipated that centralized management will result in savings through elimination of duplicative functions and from such things as volume discounts which are available by purchasing more items at one time.

CAPITAL PURCHASE PROGRAM:

($millions)

	FY 1994	FY 1995	FY 1996	FY 1997
FY 1995 President's Budget	5.1	5.0		
Current Request	5.1	4.8	6.0	2.9

The majority of capital purchases to be incorporated are associated with information technology efforts, largely in support of the migration of ADP support from main frame to a client/server environment.

DEPARTMENT OF THE NAVY
TRANSPORTATION - NAVY
REVENUE AND EXPENSES
(Dollars in Millions)

	FY 1994	FY 1995	FY 1996	FY 1997
Revenue:				
Gross Sales	832.6	1,101.6	1,264.1	1,275.8
Operations	831.8	1,101.0	1,248.8	1,256.7
Capital Surcharge	0.0	0.0	14.6	18.4
Depreciation except Maj Const	0.7	0.5	0.7	0.7
Major Construction Depreciation	0.0	0.0	0.0	0.0
Other Income				
Refunds/Discounts (-)				
Total Income	**832.6**	**1,101.6**	**1,264.1**	**1,275.8**
Expenses:				
Cost of Materiel Sold from Inventory				
Negotiated Purchases from Customers				
Transportation	13.5	12.5	13.6	15.2
Salaries and Wages:				
Military Personnel	29.2	33.7	35.3	37.9
Civilian Personnel	246.4	250.5	264.8	282.9
Materials, Supplies and				
Parts used in Operations	40.8	41.2	48.7	45.5
Facility Repair Charge	1.0	0.0	0.1	0.1
Depreciation - Capital	0.7	0.5	0.7	0.7
Contracted Engineering Services	0.0	0.0	0.0	0.0
Lease Costs	66.6	206.0	218.5	216.1
Purchased Utilities	0.2	0.3	0.4	0.4
Purchased Communications	1.2	4.4	4.6	4.7
Equipment Maintenance	0.7	0.3	0.4	0.4
Fuel	57.6	89.4	96.1	103.7
Other Expenses	262.7	481.8	554.1	549.8
Total Expenses	**720.6**	**1,120.8**	**1,237.3**	**1,257.4**
Operating Result	111.9	(19.2)	26.8	18.4
Less Capital Surchg Reservation	0.0	0.0	14.6	18.4
Plus Appropriations Affecting NOR/AOR	0.0	0.0	0.0	0.0
Other Changes Affecting NOR/AOR	232.6	11.6	0.0	0.0
Net Operating Result	344.6	(7.6)	12.2	0.0
Prior Year AOR	(349.2)	(4.7)	(12.2)	(0.0)
Accumulated Operating Result	(4.7)	(12.2)	(0.0)	0.0

BUSINESS AREA ANALYSIS
DEPARTMENT OF THE NAVY
TRANSPORTATION - NAVY
SOURCE OF REVENUE
(Dollars in Millions)

	FY 1994	FY 1995	FY 1996	FY 1997
1. New Orders	832.6	1,101.6	1,264.1	1,275.7
a. Orders from DoD Components	831.4	1,100.9	1,264.1	1,275.0
Department of the Navy	815.1	1,087.0	1,247.4	1,259.1
Operations and Maintenance, Navy	795.2	1,028.0	1,112.3	1,156.7
Operations and Maintenance, Marine Corps	1.6	0.0	0.0	0.0
O&M, Navy Reserve				
O&M, Marine Corps Reserve				
Aircraft Procurement, Navy				
Weapons Procurement, Navy				
Shipbuilding & Conversion, Navy	14.3	52.3	129.3	96.1
Other Procurement, Navy	0.6			
Procurement, Marine Corps				
Family Housing, Navy and Marine Corps				
Research, Development, Test & Eval, Navy	0.0	6.7	5.9	6.3
Military Construction, Navy				
Other Navy Appropriations	3.4			
Other Marine Corps Appropriations				
Department of the Army	0.2	0.0	0.0	0.0
Army Operation & Maintenance Accounts	0.2			
Army Res, Dev, Test & Eval Accounts				
Army Procurement Accounts				
Army Other				
Department of the Air Force	15.2	13.4	15.5	15.6
Air Force Operation & Maintenance Accounts	15.2	13.4	15.5	15.6
Air Force Res, Dev, Test & Eval Accounts				
Air Force Procurement Accounts				
Air Force Other				
DoD Appropriated Accounts	0.9	0.4	1.1	0.4
Base Closure and Realignment				
Operation & Maintenance Accounts	0.9	0.4	1.1	0.4
Res, Dev, Test & Eval Accounts				
Procurement Accounts				
DoD Other				
b. Orders from DBOF Business Areas	0.8	0.7	0.0	0.7
c. Total DoD	832.2	1,101.6	1,264.1	1,275.7
d. Other Orders	0.4	0.0	0.0	0.0
Other Federal Agencies				
Trust Funds (including FMS)	0.4			
Non Federal Agencies				
2. Carry-In Orders	48.2	48.2	48.2	48.2
3. Total Gross Orders (available funding)	880.8	1,149.8	1,312.3	1,324.0
4. Carry-Out Orders	48.2	48.2	48.2	48.2
Change in Backlog (carry-out less carry-in)	0.0	0.0	0.0	0.0
5. Total Gross Sales	832.6	1,101.6	1,264.1	1,275.7

Department of the Navy

TRANSPORTATION - NAVY

Summary of Price, Program and Other Changes (Operating Budget)

February 1995

($ in Thousands)

	Cost of Operations FY 1994	Price Growth	Program & Other Changes	Cost of Operations FY 1995	Price Growth	Program & Other Changes	Cost of Operations FY 1996	Price Growth	Program & Other Changes	Cost of Operations FY 1997
Military Personnel Compensation	29,245	312	4,160	33,717	165	1,455	35,337	223	2,325	37,885
Civilian Personnel Compensation	246,366	8,099	(3,936)	250,529	5,677	8,565	264,771	7,469	10,618	282,858
Travel	12,092	268	(1,602)	10,758	215	689	11,662	252	1,013	12,927
Material & Supplies - Commercial	36,881	1,033	(1,854)	36,060	1,082	3,947	41,089	1,233	(3,023)	39,299
Material & Supplies - from DBOF	61,461	858	32,279	94,598	5,355	3,784	103,737	2,240	3,929	109,906
Other Intrafund (DBOF) Purchases	6,119	(242)	(3,316)	2,561	(43)	229	2,747	144	(616)	2,275
Transportation	1,411	40	245	1,696	85	167	1,948	58	220	2,226
Capital Investment Depreciation	748		(211)	537		125	662		40	702
Other Purchases	326,322	9,137	354,846	690,305	20,709	64,309	775,323	23,260	(29,314)	769,269
Total Operating Budget *	**720,645**	**19,505**	**380,611**	**1,120,761**	**33,245**	**83,270**	**1,237,276**	**34,879**	**(14,808)**	**1,257,347**

*Includes Reimbursements

000290

DEPARTMENT OF THE NAVY
TRANSPORTATION - NAVY
SUMMARY OF CHANGES IN OPERATIONS
(Dollars in Millions)

	Costs
FY 1994 Current Estimate	**$720.6**
FY 1995 Estimate in President's Budget	**$1,166.4**
Pricing Adjustments:	
Civilian Personnel	1.7
Productivity Initiatives and Other Efficiencies:	
Waterman class contract renegotiation	(3.7)
Reduced manning on T-AFS 8 class ships	(0.7)
Lube oil analysis	(4.1)
SECNAV directed Overhead Efficiencies	(1.8)
Program Changes	
Exercise T-AH 19	1.6
SOSUS program changes	(12.4)
T-AH 20 operations	2.7
Add Two T-LKA's	34.1
Deactivate T-AOs 191/192	(34.0)
Delayed delivery of T-AGOS 24	(6.6)
Early deactivation of T-AK 286	(3.4)
Post Shakedown Availability for T-AFS 5 delayed	3.5
Extension of T-AO 190	5.3
Early deactivation of T-ARC 6	(11.1)
Early deactivation of T-AGS 40	(11.3)
Deferred FY 1994 availability for T-AGM 23	2.7
ROS 120 days vs FOS T-AGM 194	(4.4)
Deactivation of TAGS 45 (USNS Waters)	(9.0)
Deactivate 3 TAGOS, 1 TAGOS to ROS status	(11.8)
Other Changes:	
Direct reimbursable estimate	7.2
Increase for mandated projects (e.g. security, GCCS, etc)	3.6
Revised CPP threshold	0.2
Support of T-AE 26 class CIVMOD	4.3
CIVMAR OPS vs Contract T-AGSs 51/52	1.8
FY 1995 Current Estimate	**$1,120.8**
Pricing Adjustments:	
Annualization of FY 1995 Pay Raise	3.4
FY 1996 Pay Raise	

Civilian Personnel	2.3
Military Personnel	0.2
DBOF Price Changes	5.3
General Purchase Inflation	22.0
Productivity Initiatives and Other Efficiencies:	
SECNAV directed Overhead Efficiencies	(1.8)
Maersk contract renegotiaion	(3.8)
Waterman contract renegotiation	(3.7)
Reduce manning on T-AFS 8 class ships	(0.8)
Lube oil analysis	(8.6)
Additional savings from Vibration Analysis program	(15.9)
Contract vs. Civilian Mariner operations of TAGS 60/61	(5.4)
Savings due to TAGS 51/52 transfer to CONOP	(1.8)
Program Changes:	
T-AVB operations	1.6
Sealift Enhancement Features (SEF) program	1.2
T-AE 32 on for full year	13.2
CIVMOD on T-AEs 35/27 less T-AE 32	33.5
CIVMOD on T-AFSs 1/ 6 less T-AFS 5	22.0
PSAs on T-AE 32 and T-AFS 5	7.7
Civilian Modification (CIVMOD) on a T-ASR	8.5
Addition of a T-ASR	4.4
Outfitting on T-AE 35/27 less T-AE 32	6.9
Activiation of T-AEs 35/27	6.3
Deactiviation of T-AO 190/188	7.3
Addition of T-AO 203/204	14.5
Addition of T-AGS 62	2.2
Full year OPS TAGS 60/61	5.3
Additonal Sponsor Modifications	9.9
Annualize TAGS 45 deactivation (occurred in prior year)	(2.8)
Deactivation of TAG 33 in FY 1995	(6.9)
Deactivation of USNS BOLD (TAGOS 12)	(4.8)
ROS vs FOS T-AFS 1/5/6	(10.0)
Prior year deactivation of T-AO 187 and T-AGOS 17	(9.0)
ROS USNS ASSERTIVE	(1.7)
Exercise T-AH 19	(1.6)
Add crew costs for two T-LKA's partial year	3.6
One-time FY 1995 T-LKA activation cost not in FY 1996	(34.1)
Revised operating scenerio for T-AGM 23	(1.4)
Other Changes:	
Fuel (increased sea days)	4.7
Maintenance and repair	29.6
Military Expense	1.4
Depreciation	0.1
Interest Expense (Equity payment on MPS)	9.2
Travel for new ship programs	0.1

Replacement of ADPE	0.4
Ashore manning requirements	2.5
Revised CPP threshold	0.5
Purchase Financial Services from DFAS	0.8
FY 1996 Estimate	**$1,237.3**
Pricing Adjustments:	
Annualization of FY 1996 Pay Raise	4.4
FY 1997 Pay Raise	
Civilian Personnel	3.1
Military Personnel	0.2
DBOF Price Changes	2.4
General Purchase Inflation	24.7
Productivity Initiatives and Other Efficiencies:	
Maersk contract renegotiaion	(6.1)
Waterman contract renegotiation	(3.8)
Reduce manning on T-AFS 8 class ships	(0.8)
Lube oil analysis	(8.6)
Additional savings from Vibration Analysis program	(14.2)
Workload Changes:	
CIVMOD on T-AFSs 1/6 FY96	(43.3)
CIVMOD two T-ATSs	8.5
PSA on T-AE 35/27 and T-AFS 1/6	16.7
T-AE 35/27 on for full year	31.5
Annualization of T-AO 188/190 deactivation in FY 1996	(9.0)
Three T-ATSs on for full year	13.5
T-AO 203/204 operating for a full year	9.2
Additional ship T-AGS 62	1.6
Inclusion of Sponsor Mods	1.0
Deactivation of TAG 194 (USNS Vanguard)	(11.6)
ROS vs FOS	(8.7)
Deactivation of T-ATF 169/166	(5.2)
Two T-LKA's operating for a full year	14.0
Other Changes;	
Fuel (additional sea days)	6.3
Maintenance and repair	(17.0)
Other	(0.7)
Interest Expense (Equity payment on MPS)	13.5
Increased ashore workyears	0.5
Overhead ADP costs	(2.0)
FY 1997 Estimate	**$1,257.4**

Business Area Capital Investment Summary
Component: Military Sealift Command
Business Area: Transportation
Date: CONGRESSIONAL Submission
($ in Millions)

Exhibit Fund - 9a

Line #	ITEM DESCRIPTION	FY 1994 Qty	FY 1994 Total Cost	FY 1995 Qty	FY 1995 Total Cost	FY 1996 Qty	FY 1996 Total Cost	FY 1997 Qty	FY 1997 Total Cost
C001	Equipment Replacement Productivity New Mission Environmental Compliance Sub-total	1	0.1						
		1	0.1	0	0.0	0	0.0	0	0.0
C002	ADPE & Telecomm		3.4		3.6		2.8		1.5
C003	Software Development		1.3		1.2		3.0		1.4
C004	Minor Construction		0.3				0.2		
	Total	1	5.1	0	4.8	0	6.0	0	2.9

000294

BUSINESS AREA CAPITAL INVESTMENT JUSTIFICATION (Dollars in Thousands)	A. BUDGET SUBMISSION FY 1996/1997 PLANNING BUDGET - CON
B. Component/Business Area/Date Military Sealift Command/Transportation CONGRESSIONAL	C. Line No. & Item Description C002 LAN Items
	D. Activity ID

	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost
Software								Varies	670		Varies	353
Equipment								Varies	1,385		Varies	758
Total									2,055			1,111

Narrative Justification:

The above represents MSC requirements to implement LANS at all offices, area commands, and headquarters.

Software includes such items as Oracle, Banyan,and Vines; equipment includes servers, micros, printers, etc. These are ongoing requirments as MSC continues to make use of ADP/IT applications.

000295

BUSINESS AREA CAPITAL INVESTMENT JUSTIFICATION (Dollars in Thousands)	A. BUDGET SUBMISSION FY 1996/1997 PLANNING BUDGET - CON
B. Component/Business Area/Date Military Sealift Command/Transportation CONGRESSIONAL	C. Line No. & Item Description C002 Mobile Office
	D. Activity ID

	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost
Mobile Offices								Varies	400		Varies	400
Total									400			400

Narrative Justification:

Provides for complete Command, Control, and Communications capabilities which would include all office infrastructure support. Mobile office is to be totally self contained requiring no external facilities to satisfy C3 system functionality. Offices will include UPS, fax, printer, micros, INMARSAT, etc.

000296

BUSINESS AREA CAPITAL INVESTMENT JUSTIFICATION (Dollars in Thousands)	A. BUDGET SUBMISSION FY 1996/1997 PLANNING BUDGET - CON
B. Component/Business Area/Date Military Sealift Command/Transportation CONGRESSIONAL	C. Line No. & Item Description International Maritime Satellite C002 INMARSAT/Earth Station
	D. Activity ID

	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost
INMARSAT/Earth Station										2	Varies	131
Total										2		131

Narrative Justification:

To provide increased communication capabilities for ship to shore.

000297

BUSINESS AREA CAPITAL INVESTMENT JUSTIFICATION (Dollars in Thousands)	A. BUDGET SUBMISSION FY 1996/1997 PLANNING BUDGET - CON
B. Component/Business Area/Date Military Sealift Command/Transportation CONGRESSIONAL	C. Line No. & Item Description C002 & C003 TDMS
	D. Activity ID

	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost
Software								Varies	50		Varies	50
Software Devel.								Varies	250		Varies	
Equipment								Varies	75		Varies	30
Total									375			80

Narrative Justification:

The Technical Data and Management System (TDMS) provides CALS and industry compatibility. TDMS provides electronic storage, import, export, revision, reproduction, and distribution of MSC technical data for global engineering and logistics operations. It provides a secure physical archive and replaces the existing manual, labor intensive, paper based system that has a high risk of loss of critical material due to age and handling.

BUSINESS AREA CAPITAL INVESTMENT JUSTIFICATION (Dollars in Thousands)	A. BUDGET SUBMISSION FY 1996/1997 PLANNING BUDGET - CON
B. Component/Business Area/Date Military Sealift Command/Transportation CONGRESSIONAL	C. Line No. & Item Description C003 Software Development
	D. Activity ID

	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost
Systems Devel									2,720			990
Total									2,720			990

Narrative Justification:

All systems operate on existing MSC or NCTS computers. All funds are for system design, test, implementation, documentation, and user training. However, MSC will be migrating from a mainframe to a client/server environment.

Certain systems providing ship schedule/voyage management and storage/archiving/distribution of ship technical date (drawings/technical manuals) are mission critical.

Various modules integrate existing worldwide procurement system with developing/deploying financial system; this ensures validation of accounting data at time of origination, and tracking of both procurement and funds control from obligation through payment.

002299

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BUSINESS AREA CAPITAL INVESTMENT JUSTIFICATION (Dollars in Thousands)	A. BUDGET SUBMISSION FY 1996/1997 PLANNING BUDGET - CON
B. Component/Business Area/Date Military Sealift Command/Transportation CONGRESSIONAL	C. Line No. & Item Description C002 & C004 Briefing Complex
	D. Activity ID

	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost
Briefing Complex - Site Mods												
- Equip								Varies	220		Varies	188
Total									220			188

Narrative Justification:

The Command Center Upgrade will integrate all C2 systems, briefing preparation functions, and briefing capabilities into a Command and Control Center.

The upgrade will include the capabilities to display from overhead or 35 mm slides, PC generated output, video teleconferencing, remote video feeds, commercial TV, video tape, etc.

000300

BUSINESS AREA CAPITAL INVESTMENT JUSTIFICATION (Dollars in Thousands)	A. BUDGET SUBMISSION FY 1996/1997 PLANNING BUDGET - CON
B. Component/Business Area/Date Military Sealift Command/Transportation CONGRESSIONAL	C. Line No. & Item Description C004 Minor Construction
	D. Activity ID

	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost
Bldg 6060									180			
Total									180			

Narrative Justification:

Currently MSCWESTPAC is working out of a rented temporary building. The building was leased at an annual rate of $115K. Estimated purchase price of building 6060 is $180K resulting in payback/savings within 18 months. Additionally, it is uncertain if the current lease will be able to be renewed beyond FY 1997.

FY 1995 CAPITAL PROGRAM RECONCILIATION

BUSINESS AREA: NAVY-TRANSPORTATION

Minor changes reflect revised program emphasis, largely to support conversion of ADP support from mainframe to a client server environment with resultant long term savings. Comparative estimates are as follows:

	FY 1995 President's Budget	Revised FY 1995	Change
Total Capital Purchases ($ millions)	5.0	4.8	-.2
Equipment (Containers)	.2	-	-.2
ADPE & Telecommunications:			
International Maritime Satellite Earth Stations	.6	.2	-.4
Fly Away Kit	.6	-	-.6
Projection System	.2	.1	-.1
Briefing Complex	-	.2	.2
Equipment & Software to Support TMDS & CALS	-	.2	.2
LAN Items (Micros, Printers, etc.)	-	.7	.7
Mobile Office	2.1	2.1	-
Software Development:			
Support of IMDS and CALS	-	.3	.3
All Other Transportation Systems	1.3	1.0	-.3

000302

DEPARTMENT OF THE NAVY
RESEARCH AND DEVELOPMENT
NARRATIVE SUMMARY

FUNCTIONAL DESCRIPTION:

The R&D business area reflected in this budget consists of four Warfare Centers and two stand-alone laboratories. The current structure was designed to preserve the Navy's R&D capability with fewer resources by purifying mission responsibilities (see below) and establishing R&D leadership areas.

BUSINESS AREA COMPOSITION:

NAVAL AIR WARFARE CENTER

Provides full spectrum research, development, test and evaluation, engineering, and fleet support for air platforms, autonomous air vehicles, missiles and missile subsystems, weapon systems associated with air warfare, avionics systems, and for sensor systems used to conduct anti-submarine warfare from air platforms. Annual volume of business is $2.7 billion.

Activity Group Composition:	Locations
Naval Air Warfare Center, Aircraft Division	Patuxent River, MD Indianapolis, IND Lakehurst, NJ Trenton, NJ Warminster, PA
Naval Air Warfare Center, Weapons Division	China Lake, CA Point Mugu, CA

NAVAL SURFACE WARFARE CENTER

Provides full spectrum research, development, test and evaluation, engineering, and fleet support for ship hull, mechanical, and electrical systems, surface combat systems, coastal warfare systems, and other offensive and defensive systems associated with surface warfare. Annual volume of business is $2.1 billion.

Activity Group Composition:	Locations
Dahlgren Division	Dahlgren, VA. Panama City, FL. White Oak, MD
Carderock Division	Carderock, MD Annapolis, MD Philadelphia, PA.

Indian Head Division	Indian Head, MD
Crane Division	Crane, IND
	Louisville, KY
Port Hueneme Division	Port Hueneme, CA
	Yorktown, VA
	Dam Neck, VA
	San Diego, CA

NAVAL UNDERSEA WARFARE CENTER

Provides full spectrum research, development, test and evaluation, engineering and fleet support for submarines, autonomous underwater systems and offensive and defensive weapon systems associated with undersea warfare. Annual volume of business is $900 million.

Activity Group Composition:	Locations
Newport Division	Newport, RI
Keyport Division	Keyport, WA

NAVAL COMMAND, CONTROL AND OCEAN SURVEILLANCE CENTER

Provides full spectrum research, development, test and evaluation, engineering and fleet support for command, control and communication systems and ocean surveillance and the integration of those systems in multi-platforms. Annual volume of business is $900 million.

Activity Group Composition:	Locations
NCCOSC RDT&E Division	San Diego, CA
NCCOSC West Coast Division	San Diego, CA
NCCOSC East Coast Division	Charleston, SC

NAVAL RESEARCH LABORATORY

The Navy's single, integrated, full spectrum corporate laboratory. Conducts a broad-based multi-disciplined program of scientific research and advanced technological development directed toward maritime applications of new and improved materials, techniques, equipment, systems and ocean, atmospheric, and space sciences and related technologies. Annual volume of business is $600 million.

Activity Group Composition:	Location
Naval Research Laboratory	Washington, DC

NAVAL FACILITIES ENGINEERING SERVICE CENTER

The Navy's primary engineering and technology center for shore establishments, Naval Construction Forces (SEABEES), and the Marine Corps Engineers. Major efforts are directed toward the development of innovative products and services to improve the acquisition, operations, and maintenance of Naval shore and ocean facilities, and the enhancement of SEABEE and Marine Corps operational readiness. Other areas of emphasis include physical security, ordnance facilities, structural dynamics and environmental protection. Annual volume of business is $50 million.

Activity Group Composition:	Location
Naval Facilities Engineering Service Center	Port Hueneme, CA

BUDGET HIGHLIGHTS:

Customers: Providing almost $7 billion in research and development services to Navy and DoD customers, this business area is one of the three largest in the DoN portion of the Defense Business Operations Fund. In addition to supporting a broad range of programs in various stages of life cycle management, the R&D business area also supports significant foreign military sales, private party customers and tenant requirements. As such, their diverse customer base includes virtually all appropriations as follows: O&M,N (18%), RDT&E (30%), Other DBOF (6%), OPN (12%), WPN (5%), SCN (6%), APN (7%), Army Appropriations (1%), Air Force Appropriations (2%), DoD Appropriations (9%) and other miscellaneous funding (4%).

Workload: Direct Labor Hours (DLHs) currently represent the best output indicator for the research and development community. From FY 1994 to FY 1995, DLH's decline 4.8 percent, from FY 1995 to FY 1996 they decline 3.3 percent and from FY 1996 to FY 1997 they decline another 4.7 percent. These workload reductions are consistent with downsizing trends within DoD and also reflect an increased reliance on the private sector to perform research, development, and in-service engineering.

	FY 1994	FY 1995	FY 1996	FY 1997
Direct Labor Hours (thousands)	61,121	58,206	56,275	53,602

Revenue: The large increase (6 percent) in Revenue from FY 1994 to 1995 is due primarily to an Accumulated Operating Result (AOR) recoupment factor of approximately $135 million included in FY 1995 rates. Revenue declines beyond FY 1995 are consistent with workload reductions, partially offset by wage increases, general inflation and DoD corporate capital surcharges.

	FY 1994	FY 1995	FY 1996	FY 1997
Revenue (millions)	$7,376	$7,821	$7,707	$7,506

Costs: Cost of Goods Sold remains relatively flat through the budget years. Generally, decreases in staffing and overall workload are offset by pay raises and general escalation.

	FY 1994	FY 1995	FY 1996	FY 1997
Cost of Goods Sold (millions)	$7,693	$7,672	$7,638	$7,462

Economies and Efficiencies: Cost savings associated with a variety of productivity initiatives are being realized by many methods such as contracting and acquisition streamlining, continued consolidations, productivity returns on capital investment purchases, and implementation of Total Quality Leadership processes. Expected dollar savings are estimated to increase by $45 million in FY 1995 over the FY 1995 President's Budget. FY 1996 will yield an additional $78 million in savings with FY 1997 accruing another $47 million.

Personnel: As a result of BRAC decisions, general workload reductions and increased use of the private sector, the R&D business area is utilizing Voluntary Early Retirement Authority and Separation Incentive Pay as force shaping tools to meet an aggressive 13 percent decline in personnel through the budget years. Though relatively costly in the near term, these separations incentives are required to maintain a competitive posture and meet budget realities. To the extent that these incentives are not taken, reduction in force measures may be required.

	FY 1994	FY 1995	FY 1996	FY 1997
Surface Warfare Center	19,578	18,064	17,276	16,124
Air Warfare Center	18,128	17,425	16,735	16,042
Undersea Warfare Center	6,562	6,315	5,609	5,166
Cmd., Control & Ocean Surv. Center	5,201	5,353	5,441	5,240
Research Laboratory	3,630	3,729	3,735	3,739
Facilities Eng. Service Center	322	281	271	273
Total Civilian Personnel (E/S)	53,421	51,167	49,067	46,584

Base Closure and Realignment: BRAC II and III decisions have been reflected in this submission. BRAC costs are treated as a direct reimbursable from the BRAC appropriation. Personnel and other savings associated with Base Closure have also been incorporated.

Stabilized Rates: R&D stabilized rates have been set to achieve accumulated operating results of zero by the end of FY 1996. After a relatively significant increase in R&D prices in FY 1995 (averaging 11 to 12 percent), rates exhibit greater stability in FY 1996 and 1997 increasing by modest levels of approximately 2 to 3 percent per year. Individual warfare center/laboratory rates are listed below and indicate the percentage change from the previous year prices.

	FY 1995	FY 1996	FY 1997
Surface Warfare Center	16.1%	2.8%	2.1%
Air Warfare Center	15.5%	1.2%	2.6%
Undersea Warfare Center	6.4%	5.9%	2.5%
Cmd., Control & Ocean Surv. Center	8.5%	2.4%	1.7%

	FY 1995	FY 1996	FY 1997
Research Laboratory	1.9%	1.6%	5.6%
Facilities Eng. Service Center	6.0%	3.5%	4.1%

Capital Budget: The following depicts, by warfare center/laboratory, levels of capital investment (in millions) required by the R&D business area to meet customer/mission requirements. This capital budget, fully funded in customer rates and comprising less than 2 percent of revenue, represents the minimum investment required to maintain adequate infrastructure, replace unserviceable/obsolete equipment and maintain the technological edge that is this business area's raison d'etre. Savings accruing from productivity enhancing investments have been incorporated into operating budgets as indicated on the Changes in Cost of Operations exhibit. The large reduction from the FY 1995 President's Budget to the FY 1995 Current Estimate is the result of a $200 million Congressional adjustment to DBOF capital which translated to a $68 million reduction to this business area.

	FY 1995 President's Budget	FY 1995 Current Est.	FY 1996	FY 1997
Surface Warfare Center	57.4	21.2	32.4	32.0
Air Warfare Center	49.9	35.0	51.3	45.3
Undersea Warfare Center	24.1	16.8	23.7	22.6
Cmd., Control & Ocean Surv. Center	12.9	8.7	10.3	8.5
Research Laboratory	16.8	11.7	16.0	16.0
Facilities Eng. Service Center	0.8	0.6	0.8	0.8
Total Capital Budget	$161.9	$94.0	$134.5	$125.2

DEPARTMENT OF THE NAVY
RESEARCH AND DEVELOPMENT
REVENUE AND EXPENSES
(Dollars in Millions)

	FY 1994	FY 1995	FY 1996	FY 1997
Revenue:				
Gross Sales	7,376.6	7,821.7	7,707.2	7,506.4
Operations	7,166.6	7,665.7	7,499.4	7,299.5
Capital Surcharge	0.0	0.0	46.3	43.8
Depreciation except Maj Const	174.3	156.0	161.5	163.1
Major Construction Depreciation	35.7	0.0	0.0	0.0
Other Income	0.0	0.0	0.0	0.0
Refunds/Discounts (-)	0.0	0.0	0.0	0.0
Total Income	**7,376.6**	**7,821.7**	**7,707.2**	**7,506.4**
Expenses:				
Cost of Materiel Sold from Inventory	0.0	0.0	0.0	0.0
Negotiated Purchases from Customers	0.0	0.0	0.0	0.0
Transportation	232.9	261.6	274.2	234.2
Salaries and Wages:				
Military Personnel	89.4	61.0	45.1	44.8
Civilian Personnel	3,207.9	3,102.2	3,104.9	3,012.9
Materials, Supplies and				
Parts used in Operations	900.3	1,020.0	952.5	974.9
Facility Repair Charge	159.3	158.5	153.9	153.9
Depreciation - Capital	210.0	156.0	161.5	163.1
Contracted Engineering Services	421.0	513.5	541.4	583.3
Lease Costs	15.0	20.9	21.7	21.7
Purchased Utilities	101.4	109.7	110.0	110.5
Purchased Communications	63.0	75.0	60.0	55.1
Equipment Maintenance	51.3	65.5	66.0	66.8
Fuel	34.3	27.4	29.5	30.3
Other Expenses	2,207.4	2,101.2	2,117.7	2,011.1
Total Expenses	**7,693.2**	**7,672.5**	**7,638.4**	**7,462.6**
Operating Result	(316.6)	149.2	68.8	43.8
Less Capital Surchg Reservation	0.0	0.0	46.3	43.8
Plus Appropriations Affecting NOR/AOR	0.0	0.0	0.0	0.0
Other Changes Affecting NOR/AOR	(19.1)	1.0	0.0	0.0
Net Operating Result	(335.7)	150.2	22.5	(0.0)
Prior Year AOR	163.0	(172.7)	(22.5)	0.0
Accumulated Operating Result	(172.7)	(22.5)	0.0	(0.0)

DEPARTMENT OF THE NAVY
Research and Development
SOURCE OF REVENUE
(Dollars in Millions)

	FY 1994	FY 1995	FY 1996	FY 1997
1. New Orders	8,725.7	7,294.5	6,906.0	6,996.7
a. Orders from DoD Components	7,782.6	6,670.4	6,285.3	6,359.1
Department of the Navy	6,845.2	5,870.5	5,500.2	5,687.2
Operations and Maintenance, Navy	1,465.4	1,293.9	1,198.8	1,340.9
Operations and Maintenance, Marine Corps	22.0	11.9	12.4	12.5
O&M, Navy Reserve	27.8	13.1	11.7	14.2
O&M, Marine Corps Reserve	0.3	0.2	0.3	0.3
Aircraft Procurement, Navy	524.6	505.0	490.7	436.5
Weapons Procurement, Navy	554.0	411.3	362.2	351.8
Shipbuilding & Conversion, Navy	568.5	398.5	394.2	395.3
Other Procurement, Navy	1,217.0	947.1	846.9	896.5
Procurement, Marine Corps	26.3	46.1	59.5	56.5
Family Housing, Navy and Marine Corps	28.5	21.9	22.7	22.9
Research, Development, Test & Eval, Navy	2,360.9	2,185.7	2,073.8	2,124.5
Military Construction, Navy	3.8	1.4	1.9	1.6
Other Navy Appropriations	41.9	33.2	25.1	33.7
Other Marine Corps Appropriations	4.2	1.2	0.0	0.0
Department of the Army	68.2	53.6	57.7	49.8
Army Operation & Maintenance Accounts	7.2	3.7	3.7	3.1
Army Res, Dev, Test & Eval Accounts	12.5	28.0	33.1	27.7
Army Procurement Accounts	6.1	11.4	11.6	10.0
Army Other	42.4	10.5	9.3	9.0
Department of the Air Force	129.4	112.1	117.9	130.4
Air Force Operation & Maintenance Accounts	10.0	7.7	7.9	8.6
Air Force Res, Dev, Test & Eval Accounts	46.1	69.9	75.4	84.3
Air Force Procurement Accounts	25.2	26.3	26.6	29.4
Air Force Other	48.1	8.2	8.0	8.1
DoD Appropriated Accounts	739.8	634.2	609.5	491.7
Base Closure and Realignment	158.3	194.9	158.5	46.1
Operation & Maintenance Accounts	33.5	8.3	6.2	8.1
Res, Dev, Test & Eval Accounts	199.6	260.2	268.0	274.1
Procurement Accounts	126.7	25.5	22.1	20.5
DoD Other	221.7	145.3	154.7	142.9
b. Orders from DBOF Business Areas	605.9	405.2	410.1	420.2
c. Total DoD	8,388.5	7,075.6	6,695.4	6,779.3
d. Other Orders	337.2	218.9	210.6	217.4
Other Federal Agencies	119.8	84.4	87.1	89.6
Trust Funds (including FMS)	183.0	103.6	93.0	95.6
Non Federal Agencies	34.4	30.9	30.5	32.2
2. Carry-In Orders	3,626.7	4,975.8	4,448.6	3,647.4
3. Total Gross Orders (available funding)	12,352.4	12,270.3	11,354.6	10,644.1
4. Carry-Out Orders	4,975.8	4,448.6	3,647.4	3,137.7
Change in Backlog (carry-out less carry-in)	1,349.1	(527.2)	(801.2)	(509.7)
5. Total Gross Sales	7,376.6	7,821.7	7,707.2	7,506.4

Department of the Navy
Research and Development
Summary of Price, Program and Other Changes (Operating Budget)
(Dollars in Thousands)

	Cost of Operations **FY 1994**	Price Growth	Program & Other Changes	Cost of Operations **FY 1995**	Price Growth	Program & Other Changes	Cost of Operations **FY 1996**	Price Growth	Program & Other Changes	Cost of Operations **FY 1997**
Military Personnel Compensation	89,401	661	(29,082)	60,980	1,234	(17,143)	45,071	1,182	(1,447)	44,806
Civilian Personnel Compensation	3,207,946	56,009	(161,750)	3,102,205	69,115	(66,414)	3,104,906	83,319	(175,350)	3,012,875
Travel	218,063	2,834	18,166	239,063	3,560	4,521	247,144	3,643	(30,701)	220,086
Material & Supplies - Commercial	602,406	16,970	86,635	706,011	21,725	(34,250)	693,486	21,358	(33,556)	681,288
Material & Supplies - from DBOF	332,144	47,120	(37,702)	341,562	(55,492)	2,420	288,490	25,470	9,906	323,866
Other Intrafund (DBOF) Purchases	380,725	43,141	(39,813)	384,053	(38)	(2,251)	381,764	11,995	(5,633)	388,126
Transportation	14,837	429	7,276	22,542	1,130	3,394	27,066	812	(13,761)	14,117
Capital Investment Depreciation	174,309	0	(18,283)	156,026	0	5,520	161,546	0	1,562	163,108
Other Purchases	2,673,404	74,859	(88,207)	2,660,056	79,799	(50,967)	2,688,888	80,667	(155,261)	2,614,294
Total Operating Budget	**7,693,235**	**242,023**	**(262,760)**	**7,672,498**	**121,033**	**(155,170)**	**7,638,361**	**228,446**	**(404,241)**	**7,462,566**

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DEPARTMENT OF THE NAVY
RESEARCH AND DEVELOPMENT
CHANGES IN COST OF OPERATIONS
(Dollars in Millions)

	Costs
FY 1994 Current Estimate	**7,693.2**
FY 1995 Estimate in President's Budget	6,893.4
Estimated Impact in FY 1995 of FY 1994 Experience:	
a. Workload increase	534.3
Pricing Adjustments:	
a. Annualization of FY 1995 Pay Raise	0.0
b. FY 1996 Pay Raise	
Civilian Personnel	23.0
Military Personnel	0.0
c. DBOF Price Changes	0.0
d. General Purchase Inflation	0.0
Productivity Initiatives and Other Efficiencies:	
a. SECNAV Overhead Efficiencies	(39.0)
b. Capital Investment/Consolidation Efficiencies	(16.5)
Program Changes:	
a. Workload	295.6
Other Changes:	
a. Depreciation	(15.0)
b. BRAC	1.7
c. VERA/SIP	(5.0)
FY 1995 Current Estimate	**7,672.5**
Pricing Adjustments:	
a. Annualization of FY 1995 Pay Raise	19.3
b. FY 1996 Pay Raise	
Civilian Personnel	49.8
Military Personnel	1.0
c. DBOF Price Changes	(57.4)
d. General Purchase Inflation	108.4
Productivity Initiatives and Other Efficiencies:	
a. SECNAV Overhead Efficiencies	(39.0)
b. Capital Investment/Consolidation Efficiencies	(38.5)

Program Changes:	
a. Workload	(41.5)
Other Changes:	
a. Depreciation	0.5
b. BRAC	(35.6)
c. VERA/SIP	(1.1)
FY 1996 Estimate	**7,638.4**
Pricing Adjustments:	
a. Annualization of FY 1996 Pay Raise	22.0
b. FY 1997 Pay Raise	
Civilian Personnel	61.7
Military Personnel	0.9
c. DBOF Price Changes	35.5
d. General Purchase Inflation	108.3
Productivity Initiatives and Other Efficiencies:	
a. Capital Investment/Consolidation Efficiencies	(46.8)
Program Changes:	
a. Workload	(234.5)
Other Changes:	
a. Depreciation	2.6
b. BRAC	(115.6)
c. VERA/SIP	(9.9)
FY 1997 Estimate	**7,462.6**

Department of the Navy
Research and Development
Capital Budget Summary
($ in Millions)

Item Description	FY 1994		FY 1995		FY 1996		FY 1997	
	Quant	Total Cost	Quant	Total Cost	Quant	Total Cost	Quant	Total Cost
1a. Non ADP Equipment (>$500,000)								
Naval Surface Warfare Center		3.0		1.3		3.7		3.3
Naval Air Warfare Center		10.9		7.8		8.5		8.7
Naval Undersea Warfare Center		6.4		1.6		3.5		2.9
Naval Command, Control and Ocean Surveillance Center		2.6		2.3		0.0		0.6
Naval Research Laboratory		1.9		5.7		1.9		5.6
Naval Facilities Engineering Service Center		0.0		0.0		0.0		0.0
Subtotal Equipment (>$500,000)		24.7		18.6		17.6		21.0
1b. Non ADP Equipment (>$50,000<$500,000)								
Naval Surface Warfare Center		13.4		4.4		9.9		11.3
Naval Air Warfare Center		12.8		5.1		11.1		9.6
Naval Undersea Warfare Center		6.4		6.5		7.7		8.1
Naval Command, Control and Ocean Surveillance Center		1.2		0.8		2.7		1.6
Naval Research Laboratory		5.2		2.7		6.6		3.0
Naval Facilities Engineering Service Center		0.4		0.3		0.4		0.3
Subtotal Equipment (>$50,000<$500,000)		39.4		19.9		38.4		33.9
2a. ADP Equipment and Telecommunications (>$100,000)								
Naval Surface Warfare Center		20.8		7.3		10.6		10.9
Naval Air Warfare Center		13.5		15.7		23.1		16.1
Naval Undersea Warfare Center		14.4		7.2		4.7		4.6
Naval Command, Control and Ocean Surveillance Center		2.6		3.4		3.9		3.6
Naval Research Laboratory		1.1		0.6		1.3		1.9
Naval Facilities Engineering Service Center		0.0		0.0		0.0		0.0
Subtotal ADP Equipment (>$100,000)		52.4		34.3		43.7		37.1

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2b. ADP Equipment and Telecommunications (>$50,000<$100,000)				
Naval Surface Warfare Center	3.1	0.8	1.1	0.4
Naval Air Warfare Center	3.8	1.2	3.0	5.4
Naval Undersea Warfare Center	1.3	0.4	2.8	1.9
Naval Command, Control and Ocean Surveillance Center	3.4	2.1	2.9	2.0
Naval Research Laboratory	2.7	1.7	4.6	4.1
Naval Facilities Engineering Service Center	0.2	0.2	0.3	0.3
Subtotal ADP Equipment (>$50,000<$100,000)	14.4	6.5	14.6	14.0
3. Software Development (>$50,000)				
Naval Surface Warfare Center	8.4	4.0	1.8	0.7
Naval Air Warfare Center	0.3	0.5	0.5	0.7
Naval Undersea Warfare Center	0.0	0.0	0.0	0.0
Naval Command, Control and Ocean Surveillance Center	0.2	0.1	0.0	0.0
Naval Research Laboratory	0.0	0.0	0.0	0.0
Naval Facilities Engineering Service Center	0.1	0.1	0.1	0.2
Subtotal Software Development (>$50,000)	8.9	4.7	2.4	1.7
4. Minor Construction (>$50,000<$300,000)				
Naval Surface Warfare Center	6.9	3.5	5.4	5.4
Naval Air Warfare Center	3.5	4.6	5.0	4.7
Naval Undersea Warfare Center	2.7	1.1	5.1	5.1
Naval Command, Control and Ocean Surveillance Center	0.7	0.0	0.9	0.7
Naval Research Laboratory	1.1	1.1	1.5	1.5
Naval Facilities Engineering Service Center	0.2	0.0	0.0	0.0
Subtotal Minor Construction (>$50,000<$300,000)	15.0	10.3	17.9	17.5
Grand Total Capital Purchase Program	154.8	94.2	134.5	125.2

0003314

Department of the Navy
Research and Development
Statement of Financial Condition
(Dollars in Millions)

	FY 1994	FY 1995	FY 1996	FY 1997
Assets:				
Selected Assets:				
Cash	(640.9)	(325.3)	119.1	87.2
(Available for Operations)				
(Required for Capital Purchases)				
Accounts Receivable	483.5	443.8	435.1	426.3
Advances Made	0.0	0.0	0.0	0.0
Inventories	155.0	150.4	142.9	132.0
Other Assets	462.7	380.9	354.0	334.7
Capital Property (Net)	1,729.5	1,774.6	1,800.8	1,818.0
Total Assets	2,189.8	2,424.4	2,851.9	2,798.2
Liabilities:				
Selected Liabilities				
Accounts Payable	472.5	465.9	466.8	456.8
Accrued Liabilities	1,456.8	1,461.4	1,498.9	1,488.3
Advances Received	692.0	90.0	55.7	48.7
Unfunded Liabilities	0.0	0.0	0.0	0.0
Other Liabilities	150.9	28.7	61.5	101.5
Total Liabilities	2,772.2	2,046.0	2,082.9	2,095.3
Government equity				
Appropriations/Reappropriations	0.0	0.0	0.0	0.0
Paid-in Capital (Assets Capitalized				
Less Liabilites Assumed)	(409.7)	400.9	769.0	703.1
Accumulated Operating Results	(172.7)	(22.5)	0.0	0.0
Total Government Equity	(582.4)	378.4	769.0	703.1
Total Liabilites and Equity	2,189.8	2,424.4	2,851.9	2,798.4

CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY1996/1997 Biennial Budget Estimates								
B. Component/Business Area/Date DON/R&D				C. Line. No & Description 1/CNC PORTAL-TYPE MACH CTR			D. Activity Identification NSWC - CRANE DIVISION, LOUISVILLE					
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
NON-ADP EQUIP							1	1,500	1,500			
INSTALLATION									222			
TOTAL									1,722			

Narrative Justification: (Replacement)

The equipment to be purchased will be a boring, drilling, milling machine center with horizontal and vertical capability. It will be a floor-type, double-column, Computer Numerically Controlled (CNC). The table will be 58" x 96" with an automatic tool changer; external and through-spindle coolant system; 5-axis capability (Universal Head with Direct Numerical Control (DNC) - OA Interface Storage Rack and Software).

This project is to replace a Numerically Controlled (NC) Horizontal Machine that was purchased in 1970. This equipment is obsolete and old drives cannot be retrofitted because of the lack of availability of parts. It is driven by numerically controlled tapes, which do not have editing capability. The present machine is in such deteriorated condition, that the maintenance exceeds the value. For approx. every three hours spent in producing parts, one hour is required for maintenance in order to keep the machine running. The new equipment selected will be compatible with other CNC equipment on-station, which will allow easy transfer of projects from machine to machine to expedite production and decrease downtime due to maintenance and repair.

If this equipment is not purchased, production times will continue to lengthen, excessive maintenance costs will continue to increase disproportionately and repair parts will become even more unavailable. Delays in production times and increased maintenance costs will create a condition that will be unacceptable to our customers and the ultimate result will be loss of projects.

000315

CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY1996/1997 Biennial Budget Estimates								
B. Component/Business Area/Date DON/R&D				C. Line. No & Description 2/CNC 4-AXIS MACHINING CNTR				D. Activity Identification NSWC - CRANE DIVISION, LOUISVILLE				
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
NON-ADP EQUIP							1	505	505			
INSTALLATION									30			
TOTAL									535			

Narrative Justification: (Replacement)

This (Computer Numerically Controled) CNC 4-axis machining center comes with an automatic tool changer with 120 tool capacity and a shuttle pallet system with two pallets. An additional 7 pallets, an acyamatic CNC machine control, and a storage rack are also part of this machining center. This project is the first of a 2-phase procurement to install a highly automated flexible machining "cell" to support small lot quantity just-in-time manufacturing at the Louisville site. This project is modular in design to permit the integration of the phase 2 procurement.

This first phase will replace two (2) 1960 vintage 3-axis machining centers. These machines are inefficient and frequently down for repairs. The modern features and accessories of the proposed machining center will ensure maximum productivity and efficiency. A large capacity tool magazine allows space for backup tooling to ensure maximum spindle up-time. Broken tool detection features inspect for damaged tools and automatically switch to backup tools preventing scrap and rework. The adaptive feed rate control feature automatically changes feed rates according to changes in the cutting loads, preventing damage to materials and tooling. The modular design of the controller allows the center to operate as an independent "Island of Automation" or to interface upward to other systems.

If not funded, this site will be forced to continue to utilize vintage machine tools to manufacture ordnance equipment parts. Because of age and mechanical condition, extended periods of downtime will continue to be experienced. Mechanical replacement parts are no longer stocked by the original machine tool vendors. This requires in-house manufacture of repair parts, which increases overhead costs. Current methods require extended spindle idle-time as production part set-ups are checked for functionality while on the machine table, and dull tools are replaced.

CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY1996/1997 Biennial Budget Estimates								
B. Component/Business Area/Date DON/R&D				C. Line. No & Description 3/REFURBISH INT GRINDER				D. Activity Identification NSWC - CRANE DIVISION, LOUISVILLE				
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
NON-ADP EQUIP										1	575	575
INSTALLATION												50
TOTAL												625

Narrative Justification: (Replacement)

This project will refurbish existing Internal Grinder, Navy identification number 017765. This machine is over 40 years old and needs to be refurbished. The machine needs new controls and new drive motors installed. Scraping the ways and replacing guides, if needed, will improve the accuracy of this machine. Spindle bearings and other substandard components need to be replaced.

This machine is unique and there is not another machine on-Station with this capability. The primary function of this machine is to grind the chambers on all types of gun barrels. It is also used to grind internal bores of other various parts as needed. In the past, it was used to grind launch valves, that were brought on-Station because of our capabilities.

If we lose this machine with its unique capability to grind the chambers of various types of gun barrels, we could, and will, lose future work. In the past, this machine was used to perform work that was brought on-Station because of our unique capabilities. We need this machine to maintain our competitiveness and be a source for this extraordinary work.

000318

CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY1996/1997 Biennial Budget Estimates								
B. Component/Business Area/Date DON/R&D				C. Line. No & Description 4/BATTERY TEST SYSTEM				D. Activity Identification NSWC - CRANE DIVISION, CRANE				
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
NON-ADP EQUIP										1	997	997

Narrative Justification: (Productivity)

A Rechargable Battery Evaluation System consisting of two 27 cubic ft temprature-humidity chambers (capable of -40 to +50 degree F) and a Digital Data Acquisition and Control System, which will include a HP-100 computer (ADP end item exempt), HP3582 scanner, HP-3465 digital voltmeter, 32 solid state load banks ranging in size from 100 amp/600 volt to 7000 amp /10 volt, and four 100 amp /600 volt DC power supplies.

This equipment is needed to improve productivity (more efficient data acquisition and control, temprature chambers located within test laboratory, programmable solid state loads instead of resistive type, replacement of high maintenance, 20 year old equipment), to provide greater safety (elimination of "open' resistive loads), and to improve test quality (greater precision and reliability during test control and greater accuracy & reliability during data acquisition & recording).

If this equipment is not procured - Mission Impact: Crane Division ability to support mission critical battery programs for DSRV, SEAWOLF, and attack submarines will be impacted. Submarines will not sail; submariner's safety will be compromised. Productivity Impact; MILCON P-283 will operate at only 63.4 efficiency.

000319

CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY1996/1997 Biennial Budget Estimates								
B. Component/Business Area/Date DON/R&D				C. Line. No & Description 5/RAPID PROTOTYPING SYSTEM				D. Activity Identification NSWC - CRANE DIVISION, CRANE				
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
NON-ADP EQUIP										1	614	614

Narrative Justification: (Productivity)

A Rapid Protyping System uses three -dimensional Computer Aided Design models to create 3D parts from powdered materials by laser sintering. Capacity of this machine is 12 inch diameter and a 15 inch depth.

Rapid Protyping (RP) will improve product engineering capability by accelerating design time, improve design modification ability and reduce iterations. Engineering form, fit, and fuctional models can be made rapidly and inexpensivly thereby eliminating dependence on costly, time consuming and hazardous machining. RP will allow sponsors to review our design concepts/modifications by viewing/handling plastic parts early in the design process. Inexpensive RP parts can be provided to bidders when bidding on contracts. RP parts can also be used as masters for die casting, sand casting, investment casting and spray metal tooling and rubber and epoxy molding. This will allow casting and molding parts for design qualification to be produced economically.

Implementation of RP will reduce product design cost, reduce design cycle time, and improve product quality. Costs will be reduced by verifying designs without the expense of creating detailed drawings or machined parts. It will allow multiple design concepts to be explored with the customer using 3D in the same or less time as conventional prototyping efforts. The results will be improved designs with fewer manufacturing iterations. RP will eliminate expensive tooling for small quanity castings. Small quanities are often required for spare parts and design verification. This system will also allow designers to design parts as castings which are less expensive than machined parts.

000320

CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY1996/1997 Biennial Budget Estimates								
B. Component/Business Area/Date DON/R&D				C. Line. No & Description 6/Magnetic Physical Modeling Facility			D. Activity Identification NSWC - CARDEROCK DIVISION, ANNAPOLIS					
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
NON-ADP EQUIP							1	610	610			

Narrative Justification: (New Mission)

The Magnetic Physical Modeling Facility is designed to measure the 3-dimensional magnetic field around large scale (circa 20-ft) models in order to evaluate magnetic silencing efforts.

Full scale sea trials can be time consuming and costly. The ability to test systems and demonstrate feasibility in the laboratory will be a significant cost saving. Proper laboratory testing will result in fewer and more effective full scale trials. A physical model facility will result in additional work in the Submarine and Surface Ship Electromagnetic Silencing Program. The physical model work represents 8% of the Submarine Block Program, or $1.25M and about 30% of the Surface Ship Program, or $700K of direct funding annually.

Failure to fund this project will result in the inability to meet customer requirements.

000321

CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY1996/1997 Biennial Budget Estimates								
B. Component/Business Area/Date DON/R&D				C. Line. No & Description 7/Large Scale Structural Model Test System			D. Activity Identification NSWC - CARDEROCK DIVISION, CARDEROCK					
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
NON-ADP EQUIP							1	300	300	1	200	200

Narrative Justification: (New Mission)

The Large Scale Structural Model Test System is a system for evaluating the strength and performance of full-size or large scale 3-Dimensional structural models.

This system will allow customer requested tests to be run on full or large scale models of structures composed of orthogonally stiffened ship hull plate for the purpose of investigating primary hull strength. It will support programs in double hull/double deck tankers, composite ship structures, ship survivability, etcetera. Specifically it will investigate compressive buckling mode interaction, strength sensitivity to structural geometry and initial imperfections, and reserve strength remaining after initial buckling, and repeated tension and compression loading.

Failure to fund this project will result in the inability to meet customer requirements.

000322

CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY1996/1997 Biennial Budget Estimates								
B. Component/Business Area/Date DON/R&D				C. Line. No & Description 8/SFDF High Pressure Air System Upgrade				D. Activity Identification NSWC - CARDEROCK DIVISION, ANNAPOLIS				
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
NON-ADP EQUIP							1	300	300	1	400	400

Narrative Justification: (New Mission)

The Submarine Fluid Dynamics Facility (SFDF) High Pressure Air System supplies high pressure air for a multitude of Research and Development facilities and purposes.

The SFDF High Pressure Air System is limited to 4200 pounds per square inch gauge (psig). At least 4800 psig capability is required to meet current needs. A trend towards pressure air systems in the 5000-6000 psig range is anticipated for the future aboard Navy ships as a space saving measure. New air bottles will provide a 5000-6000 psig capability when a new compressor and manifold system able to handle the increased pressure is procured. This facility directly supports Research and Development efforts to provide quiet air systems in support of surface and undersea vehicle acoustical signature reduction.

Failure to fund this project will result in the inability to meet customer requirements.

000323

CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY1996/1997 Biennial Budget Estimates								
B. Component/Business Area/Date DON/R&D				C. Line. No & Description 9/PURCHASE/INSTALL WASTEWATER RECIRCULATING AP SYS.			D. Activity Identification NSWC - INDIAN HEAD DIVISION, INDIAN HEAD					
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
NON-ADP EQUIP										1	500	500

Narrative Justification: (Environ/Safety)

Wastewater Recirculating Equipment.

This equipment is required to bring the Activity into compliance with Federal and State regulations governed by the Clean Water Act and will reduce the amount of Ammonium Perchlorate being discharged to the sanitary sewer.

Without this equipment, the Activity will be unable to comply with Federal and State regulations governing the Clean Water Act.

000324

CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)							A. Budget Submission FY1996/1997 Biennial Budget Estimates					
B. Component/Business Area/Date DON/R&D				C. Line. No & Description 10/Misc Non ADP Equipment Rep Items < 200K			D. Activity Identification					
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
Non ADP Equipment							VAR		4,529	VAR		4,254

Narrative Justification: (Replacement)

This investment replaces aged equipment that is beyond economical repair and will also reduce downtime and maintenance. Examples of replacement equipment include: CESE, Inertial Navigation System, 13FT Pressure Tank Controls, and a Welding Lathe.

CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY1996/1997 Biennial Budget Estimates								
B. Component/Business Area/Date DON/R&D				C. Line. No & Description 11/Misc Non ADP Equip Prod Items < 500K			D. Activity Identification Naval Warfare Centers					
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
NON-ADP EQUIP							VAR		1,303	VAR		1,350

Narrative Justification: (Productivity)

This investment purchases productivity related items which improve the quality and efficiency of the work performed at the Naval Surface Warfare Centers. Examples of productivity investments include: Gas Chromatograph/Mass Spectrometer, Forklift Truck (sideload), Automatic Tube Bender, and a 48 Message Camera System.

000326

CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY1996/1997 Biennial Budget Estimates								
B. Component/Business Area/Date DON/R&D				C. Line. No & Description 12/Misc Non ADP Equip New Mission Items < 500K			D. Activity Identification Naval Warfare Centers					
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
NON-ADP EQUIP							VAR		3,129	VAR		4,786

Narrative Justification: (New Mission)

Examples of the types of miscellaneous Non ADP Equipment to be purchased include: Thermal Imaging System, Digital Oscilloscopes, Automated Particle Counter, and a Transmissometer/Absorption Meter.

000327

CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)							A. Budget Submission FY1996/1997 Biennial Budget Estimates					
B. Component/Business Area/Date DON/R&D				C. Line. No & Description 13/Misc Non ADP Equip Env/Safety Items < 500K			D. Activity Identification Naval Warfare Centers					
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
NON-ADP EQUIP							VAR		1,080	VAR		892

Narrative Justification: (Environ/Safety)

These projects are required to meet regulatory requirements which are primarily environmental or safety related. Examples of the types of equipment include: Atomic Absorption Spectrophotometer, Thunder Storm Sensor System, Powder Coating Paint System, Channel Control/Monitoring System, and an Environmental Containment.

000328

CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)							A. Budget Submission FY1996/1997 Biennial Budget Estimates					
B. Component/Business Area/Date DON/R&D				C. Line. No & Description 14/CDS INTEGRATION UPGRADE			D. Activity Identification NSWC - PORT HUENEME DIVISION, DAM NECK					
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
ADP EQUIP										1	330	330

Narrative Justification: (Replacement)

Technical design engineering support and associated materials to expand and upgrade the integration Combat Direction System (CDS) network throughout the complex.

Continued technology upgrades to display systems, system processors and networks has required personnel to interface with numberous co-shared equipment suites throughout the complex. The present installed system is unable to support the technology of the present and future. This expansion upgrade will support software development and the In Service Engineering Agent (ISEA) roles located at NSWC PHD 6000 and Combat Direction System Agents.

This CDS integration upgrade is mission critical to support live integration testing. The inability to test systems under the live sensor capabilities installed will result in repeated efforts at another location. This location is a training system for USACOM (DIS NODE) and provides an opportunity to integrate data both to and from various sites into the PHD site.

CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY1996/1997 Biennial Budget Estimates								
B. Component/Business Area/Date DON/R&D				C. Line. No & Description 15/DOWNSIZING OF MAINFRAMES				D. Activity Identification NSWC - PORT HUENEME DIVISION, PORT HUENEME				
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
ADP EQUIP										1	125	125

Narrative Justification: (Replacement)

Open systems equipment such as network/file servers, print servers, client/server software, and network interface software.

To meet the command's requirement to downsize mainframes and correctly size computing cost to the need in response to the requirement to transition to an electronic communication environment.

The command will be unable to migrate from a mainframe environment to the required downsized distributed environment and transition to a full functioning "paperless office" environment. This is a multi year project. Wtihout this procurement the Division will be unable to communicate via electronic means as requested by higher authority.

000330

CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY1996/1997 Biennial Budget Estimates								
B. Component/Business Area/Date DON/R&D				C. Line. No & Description 16/Desktop Publishing Upgrade				D. Activity Identification NSWC - DAHLGREN DIVISION, PANAMA CITY				
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
ADP EQUIP										1	120	120

Narrative Justification: (Replacement)

Upgrade to state of the art workstations and advanced (SGML format) page definition software with advanced graphics capabilities.

This project provides state of the art hardware and software that is CALS compliant for the production of engineering technical manuals. Currently DOS based machines using INTEL 1486 chip technology and Ventura Publisher software are utilized. This technology has been pushed to its limit and is not always compatible with industry contractors and CALS standards for direct intechange of data. The proposed equipment would provide this capability.

Without this purchase full integration of CALS compliant software is not possible. This purchase is needed to comply with CALS initiatives.

000334

CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY1996/1997 Biennial Budget Estimates								
B. Component/Business Area/Date DON/R&D				C. Line. No & Description 17/ENGINEERING ENVIRONMENT: CAE WORKSTATION			D. Activity Identification NSWC - DAHLGREN DIVISION, DAHLGREN					
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
ADP EQUIP							1	69	69	1	72	72

Narrative Justification: (Replacement)

This investment will replace two SGI workstations with Computer Aided Engineering (CAE) workstations (one each in FY96 and in FY97) to support the Engineering Environment thrust. This capability provides the necessary environment for the design, documentation, and analysis, as well as modeling and simuation of weapons systems.

The SGI workstation that currently functions as a file server, software license server and CAE workstation will be obsolete by FY96 and must be replaced. This capability is critical to the weapons programs supported by the Engineering Environment, including STANDARD Missile, Vertical Launch System (VLS), Shoulder-Launched Multi-purpose Assault Weapon (SMAW), and Short Range Anti-tank Weapon (SRAW).

If this system is not replaced, systems level prototyping capability will be greatly reduced and operational costs will continue to increase.

000332

CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY1996/1997 Biennial Budget Estimates								
B. Component/Business Area/Date DON/R&D				C. Line. No & Description 18/FDDI UPGRADE TO LAN BACKBONE				D. Activity Identification NSWC - PORT HUENEME DIVISION, PORT HUENEME				
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
ADP EQUIP										1	200	200

Narrative Justification: (Replacement)

Networking devices such as Fiber Distributed Data Interface to Fiber Distributed Data Interface routers, bridges, and/or gateways, optical fiber transmission equipment/material, and telecommunication devices.

To provide the necessary Local Area Network backbone to support engineers and other command users in their expected workload for high-density, high-speed graphics transmissions and technical documentation, such as Joint Computer Aided Logistics and Joint Engineering Data Management Information Control System (JEDMICS).

The command's network bandwidth utilization will increase and will result in longer and longer delays in the transmission of data. These delays will prevent command users from completing their workload in the necessary timeframe for their mission. This is a phased replacement. Economic Analysis data is based on the assumption that procurement is made in the fiscal years planned.

000333

CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY1996/1997 Biennial Budget Estimates								
B. Component/Business Area/Date DON/R&D				C. Line. No & Description 19/High Performance Vizualization Network			D. Activity Identification NSWC - CARDEROCK DIVISION, CARDEROCK					
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
ADP EQUIP							1	60	60	1	95	95

Narrative Justification: (Replacement)

This project will procure a high performance multi-processor visualization system and peripheral/supporting equipment consisting of a network server, video editing system, and a medium performance graphics/multi-media workstation to replace an older obsolete system.

Carderock Division, Naval Surface Warfare Center (CARDEROCKDIV, NSWC) is heavily involved in physics-based modeling and simulation visualization. The new system is urgently needed to support the increasingly complex computational models produced as a result of these programs.

Failure to fund this project will result in continued high maintenance costs, lost productivity due to component down time, and increased contracting costs in order to meet customer requirements.

CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY1996/1997 Biennial Budget Estimates								
B. Component/Business Area/Date DON/R&D				C. Line. No & Description 20/INTEGRATED SOFTWARE ENGINEERING ENVIRON			D. Activity Identification NSWC - PORT HUENEME DIVISION, DAM NECK					
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
ADP EQUIP							1	360	360	1	360	360

Narrative Justification: (Replacement)

This is a phased project to procure hardware to increase productivity within the software engineering process. This a multi year project.

This system will consolidate and redefine our software engineering environment (SER) to support all functional areas of the software enginering process. In addition to enhancing our mission capabilities we will be better able to support our customers due to improved project planning, tracking and oversight.

Failure to create and maintain a SER utilizing progressive technology will greatly impact our ability to provide timely support to rapidly evolving fleet requirements. The current fragmented SEE is labor intensive and potentially error prone. Inefficiencies within the current system, coupled with the continuing labor force reduction, will cause cost overruns, late deliveries and the inability to adequately serve our customers during the "OUT" years.

000335

CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY1996/1997 Biennial Budget Estimates								
B. Component/Business Area/Date DON/R&D				C. Line. No & Description 21/LAN EQUIPMENT					D. Activity Identification NSWC - PORT HUENEME DIVISION, PORT HUENEME			
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
ADP EQUIP										1	200	200

Narrative Justification: (Replacement)

Networking devices such a high density terminal servers, multi-port Ethernet concentrators, high-speed networking bridges/routers, optical fiber transmission equipment, and telecommunication devices.

To replace and upgrade networking equipment that has become obsolete or is no longer capable of handling the command's networking requirements. Economic Analysis assumes prior year procurement is made as requested.

The command's network will become increasingly difficult to maintain and will eventually suffer a catastrophic failure that will require hundreds of manhours and thousands of dollars spent to fix and bring back on-line.

000336

CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY1996/1997 Biennial Budget Estimates								
B. Component/Business Area/Date DON/R&D				C. Line. No & Description 22/MISSION SUPPORT SYSTEM				D. Activity Identification NSWC - PORT HUENEME DIVISION, DAM NECK				
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
ADP EQUIP										1	119	119

Narrative Justification: (Replacement)

CPU upgrades, workstations, memory, disks, tape, supporting software, installation.

Current systems being replaced under this acquisition are 12 years old. Maintenance costs are high due to down time and lack of available parts. Mission support requirements necesitate providing Life Cycle Manager support to Advanced Combat Direction System in direct support of the fleet. Deparment Of Defense downsizing requires doing more with less people. State of the art software and hardware provide a reduction in overhead costs as well as faster processing turn around for the user community.

By not upgrading exisiting resources, our ability to develop technology advanced Advanced Combat Direction System software using a state of the art engineering environment will not exist. Cost to provide fleet support will not be reduced and schedules will be impacted as a result of not being able to produce efficiently.

000337

CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)						A. Budget Submission FY1996/1997 Biennial Budget Estimates					
B. Component/Business Area/Date DON/R&D				C. Line. No & Description 23/NETWORK UPGRADE			D. Activity Identification NSWC - PORT HUENEME DIVISION, DAM NECK				
	FY 1994			FY 1995			FY 1996			FY 1997	
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
ADP EQUIP							1	400	400			

Narrative Justification: (Replacement)

Data Communications Devices such as: high density terminal servers, Fiber Optics, Ethernet Hubs, High Speed Network Bridges, Multiport concentrators, and associated Network Management Hardware.

The current thicknet Ethernet backbone has become saturated as a result of new requirements and growth. The number of workstations that are being supported has grown beyond the capability of the existing network communication devices. Additionally, the network needs to support new graphics software, image processing, distributed video for briefs and training and increased number of users.

In order to support the additional needs listed above the network needs to be upgraded to a higher band width. Otherwise additional networks will have to be added which will necessitate buying existing software again and would allow no file sharing across the manpower levels brought on due to attrition and downsizing. Also an upgrade will grant use of reengineering processes which are presently becoming cost prohibitive.

000338

CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY1996/1997 Biennial Budget Estimates								
B. Component/Business Area/Date DON/R&D				C. Line. No & Description 24/OPTICAL DISK STORAGE - CALS				D. Activity Identification NSWC - PORT HUENEME DIVISION, PORT HUENEME				
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
ADP EQUIP							1	350	350	1	350	350

Narrative Justification: (Replacement)

Optical disk drives, controllers, software drivers and interfacing hardware such as cables and connectors to add optical disk storage to the network to support Computer Aided Logistics (CALS).

The project is phased from FY95 thru FY97. This equipment is required to reduce on-line storage cost and computer room floor space required, and expand total data storage capability to support Computer Aided Logistics (CALS) initiatives. PHD is currently using workstations with insufficient data storage to process large volumes of data in such areas as evaluating vendor compliancy and engineering analysis. Because this information is not located within a central facility, the data is not backed up at the same time making it impossible to reconstruct a database from back-up sets. As a result, the ability to insure data integrity and continued operation in case of catastrophic failure is at risk. Adding a disk storage pool for engineering/logistics departments to share will make it possible to continue support and reutilize space immediately when projects are able to archive data.

Failure to add additional storage capacity will require projects requiring electronic review of engineering data to be accomplished in small increments resulting in time delays and possible interruptions to meeting ships schedules.

0033

CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY1996/1997 Biennial Budget Estimates								
B. Component/Business Area/Date DON/R&D				C. Line. No & Description 25/REMOTE COMPUTER SYSTEM - CALS			D. Activity Identification NSWC - PORT HUENEME DIVISION, PORT HUENEME					
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
ADP EQUIP							1	300	300	1	300	300

Narrative Justification: (Replacement)

Database server (processor), optical and magnetic disk drives, controllers, application software and device drivers, engineering graphic workstations, and interfacing hardware such as cables and connectors. This project is phased through FY96 and FY97.

At present, workstations are scattered throughout the network. Processing is insufficient to meet future requirements in such areas as evaluating vendor compliance and engineering analysis in accordance with Computer Aided Logistics (CALS) initiatives. The ability to ensure data integrity and continued operation in case of a catastrophic failure is at risk. This project will provide a remote system capable of processing information in the functional work spaces. The remote system shall be capable of storing or retrieving data in the central computing facility. This will reduce on-line cost, make it possible to back-up information that is mission critical, and provide safeguards in case of equipment failures.

IMPACT: The command is required to evaluate contract deliverables to determine if the vendor has met CALS compliance requirements.

000340

CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY1996/1997 Biennial Budget Estimates								
B. Component/Business Area/Date DON/R&D				C. Line. No & Description 26/TRUSTED LAN HUB					D. Activity Identification NSWC - PORT HUENEME DIVISION, DAM NECK			
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
ADP EQUIP							1	250	250	1	250	250

Narrative Justification: (Replacement)

The trusted Local Area Network (LAN) hub consists of the hardware and operating software to connect several heterogeneous LANs of various classifications. The resultant Local Area Network will comply with B2 multi-level requirements of the National Security Center. This project is phased over multiple years beginning in FY96.

The proposed equipment has been evaluated and rated by NSWC and is approved as a trustee multi level secure hub. The NAVSEA Information Management Improvement Program mandates the establishment of on-line network access for message traffic and other NAVSEA organization management activities. In order to implement these requirements, a trusted hub is needed to connect networks of various classifications and architectures while still complying with NAVSEA 5239.1B.

Lack of funds will force continued isolation of existing networks. File transfer will continue to be done manually. The Message Distribution System (MDS) will force the Office Automation Local Area Network to be isolated from administrative support system. The tactical support Local Area Network will continue to be isolated from our management information system. It will not be possible to have a truly integrated synergistic software engineering environment without some type of trusted hub to connect the various tactical support systems currently used to produce fleet programs. Lack of such a system will impact the command's efforts to standardize our processes and improve our software Maturity Capability level.

000341

CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY1996/1997 Biennial Budget Estimates								
B. Component/Business Area/Date DON/R&D				C. Line. No & Description 27/UNCLASSIFIED SYSTEM				D. Activity Identification NSWC - DAHLGREN DIVISION, DAHLGREN				
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
ADP EQUIP										1	300	300

Narrative Justification: (Replacement)

The Unclassified System provides a cost-effective, large-scale distributed computing system for the unclassified performance computational requirements of Center programs. This investment consists of a CRAY EL-98 in FY94 and upgrades in FY96.

It replaces NSWCDD's existing unclassified S&E computing system which was competitively procured in 1983 and now contains major deficiencies, including a significant shortfall in capacity, inadequate computing power and functionality, insufficient memory address space for processing large R&D problems, and increasingly obsolete technology.

This procurement is necessary for the system to meet the S&E computing needs of NSWCDD R&D programs, such as STANDARD Missile, TOMAHAWK, and the AEGIS Combat System, as well as numerous smaller programs in the Center Technology Base areas.

000342

CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY1996/1997 Biennial Budget Estimates								
B. Component/Business Area/Date DON/R&D				C. Line. No & Description 28/NIMIP EQUIPMENT			D. Activity Identification NSWC - ALL					
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
ADP EQUIP							1	3,000	3,000	1	726	726

Narrative Justification: (Productivity)

NIMIP IMPLEMENTATION: The current hardware computing capability is based upon aging, proprietary environments. These configurations are utilized to process applications implemented at multiple sites as well as NSWC Division unique applications. Investment benefits to be realized include: (1) replacement of proprietary hardware, (2) competitive contracting for open system environments, (3) lowering maintenance cost from release of near-obsolete equipment, (4) portability of information through seamless communication of different size platforms across devices in multiple environments, and (5) supporting peace and war-time requirements through CALS/NAVSEA IRSP standards based computing. This program is part of the NAVSEA Business Case which analyzed solutions for improving the IRM Business Function; it was approved by NISMC as the MNS for the NIMIP. NSWC performed a program economic analysis as part of their business case. The impact of not making the investment is to: (1) remain in the sole source closed environment and (2) not be able to achieve budgeted savings.

000343

CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY1996/1997 Biennial Budget Estimates								
B. Component/Business Area/Date DON/R&D				C. Line. No & Description 29/SCIENTIFIC VISUALIZATION AND VR LAB EQUIPMENT			D. Activity Identification NSWC - DAHLGREN DIVISION, DAHLGREN					
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
ADP EQUIP							VAR		525	VAR		440

Narrative Justification: (Productivity)

This investment provides high performance computing capability for the Dahlgren Divison Scientific Visualization and Virtual Reality Laboratory. Specifically, three current off the shelf (COTS) SGI Reality Engines with associated display, computation, sound 3D input devices will be purchased, one each in FY95, FY96, and FY97. In addition, a graphics workstation and a graphics upgrade for an existing workstation will also be acquired in FY95 to enhance graphic representation and manipulation of image data.

Currently available equipment to perform this analysis operates at various levels of efficiency, depending on the complexity and quantity of the data. This equipment now supports many programs, but is inadequate to meet requirements (some data sets now require days to process). The need for this type of analysis is rapidly increasing and is expected to continue to grow in the future. Programs supported include TOMAHAWK, AEGIS, Ship Self Defense, Close In Weapons System, and Standard Missile.

This equipment is required to support current customer needs as well as projected needs.

CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY1996/1997 Biennial Budget Estimates								
B. Component/Business Area/Date DON/R&D				C. Line. No & Description 30/EDMICS SYSTEM				D. Activity Identification NSWC - CRANE DIVISION, CRANE				
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
ADP EQUIP										1	625	625
INSTALLATION												53
TOTAL												678

Narrative Justification: (Productivity)

Engineering Data Management Information and Control System (EDMICS) is the automated data storage and retrieval system for the Navy. It is an information system that can provide on-line access to engineering data. FY97 requirement for hardware is a Central Site Storage Facility.

Aproximately 60% of all request for engineering drawing images at NSWC are not filled because of "not in file" aperture cards, inconsistencies in file indexing and misplaced cards. EDMICS will provide continuous availability of data to multiple users with print on demand capability. It is estimated that a fully operational EDMICS system will reduce the need for reprocurement of technical data by 90%. It is estimated that drawing retrieval time will be reduced from 7.5 minutes (manual retrieval) to 45 seconds.

EDMICS will provide substantial cost avoidances in depot productivity to include increased response time in locating engineering data and reduced reprocurement of technical data. Without the EDMICS System NSWC Crane will not have the capability to interact with other activities/contractors who have invested in what is rapidly becoming the standard for managing, distributing and exchanging engineering data throughout the Department of Defense.

000345

CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY1996/1997 Biennial Budget Estimates								
B. Component/Business Area/Date DON/R&D				C. Line. No & Description 31/ADPT: GENERAL FACILITY UPGRADE			D. Activity Identification NSWC - DAHLGREN DIVISION, DAHLGREN					
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
ADP EQUIP							VAR		400	VAR		400

Narrative Justification: (Productivity)

The Advanced Distributed Processing Technology (ADPT) thrust provides an environment for software development and analysis and the capability to process both unclassified and classified data. These analyses utilize a distributed parallel paradigm enabling parallel and concurrent execution of software. This procurement consists of memory, disk, and graphics upgrades as well as file server and workstation upgrades for previously purchased equipment.

These upgrades will improve productivity by increasing the server speed; by allowing users to analyze larger, more complex problems and decreasing analysis time; by improving the individual workstations' performance; and by enhancing graphic tools. This thrust supports many programs including AEGIS, Artificial Neural Networks (ANN), Tri-Service Strike ATD, ASTER, and Multisensor Detection.

The ability to perform software development and analysis will be severely hampered without this investment. Productivity improvements will not be accomplished.

000346

CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY1996/1997 Biennial Budget Estimates								
B. Component/Business Area/Date DON/R&D				C. Line. No & Description 32/ASW FACILITY: PERIPHERAL SWITCHES			D. Activity Identification NSWC - DAHLGREN DIVISION, DAHLGREN					
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
ADP EQUIP							VAR		100			

Narrative Justification: (Productivity)

The Navy Tactical Data Standard (NTDS) Switch System consists of high speed electronic switch components for rapid, efficient and low risk reconfiguration of tactical computer systems. The components include controller modules, switch nodes, and other related subcomponents.

The utilization of tactical equipment is limited by the capability to reconfigure a tactical system to simulate a particular ship variant. Systems reconfiguration is a common activity requiring manual cable swaps, directly translating into time delays and high risk of equipment damage. This automated switch system eliminates the risk and provides a rapid reconfiguration capability for the desired ship variant. The system supports combat systems development and integration, including systems software development, integration and testing.

Limited capability for rapid reconfiguration of tactical computer systems will continue if this investment is not made. Some configurations needed will not be possible due to the complexity of the re-cabling required. Increased manpower costs for reconfiguring tactical interfaces will be unavoidable. High risk, high cost hardware repairs will continue to be required due to the manual switching of systems to achieve the desired configuration. Unavoidable delays will be experienced as technical personnnel attempt to execute time-consuming system reconfiguration and unexpected damage to hardware occurs.

000342

CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY1996/1997 Biennial Budget Estimates								
B. Component/Business Area/Date DON/R&D				C. Line. No & Description 33/CAD/CAM System			D. Activity Identification NSWC - DAHLGREN DIVISION, PANAMA CITY					
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
ADP EQUIP										3	50	150

Narrative Justification: (Productivity)

RISC based workstations running industry standard software and interfacing with input (digitizers, scanners) processing software and output (laser plotters) devices.

This equipment is critical to the acquisition, development, and production of engineering drawings which are currently completed in a manual method. Currently, drawings are developed or changed by individual draftsmen using master drawings and a long serial system of review and approval. Final production of needed drawings is done via Ozlid blueprint machines or on microfiche. This method is inefficient and extremely labor intensive. The proposed equipment will increase efficiency by enabling simultaneous review and approval and allow high speed production of finished drawings and documentation for distribution.

Failure to procure this equipment will prevent productivity increases and will impact the responsiveness of engineering support to customers.

000348

CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY1996/1997 Biennial Budget Estimates								
B. Component/Business Area/Date DON/R&D				C. Line. No & Description 34/CAM SYSTEM (2)				D. Activity Identification NSWC - CRANE DIVISION, LOUISVILLE				
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
ADP EQUIP							1	125	125			

Narrative Justification: (Productivity)

Open systems, CALS Compliant, High Performance Advanced 2D and 3D Surfacing and Solid Modeling Computer Aided Manufacturing System.

The Computer Aided Manufacturing (CAM) initiative supports all production projects at the Louisville site. This procurement is a second phase purchase to provide an increase in CAM capability to support several, new Computer Numerical Control (CNC) Machine Tools in the CPP budget for the next five years. The additional equipment is to be stand alone workstations compatibile with existing Applicon software and have the ability to share and exchange data with other hardware utilizing Applicon and other commercial software via a common network.

The Capital Equipment Budget for the next five years indicate several, new Computer Numerical Control (CNC) Machine Tools as well as conventional to CNC retrofits. These procurements will make the ratio of CNC Machine Tools to supporting Computer Aided Manufacturing (CAM) equipment even wider. Without funding of a second phase procurement of CAM workstations, we will be able to fully support future Capital Equipment procurements. Newly installed machine tools will not be workloaded immediately, resulting in poor machine tool utilization. In order to provide a reasonable level of support, we will be required to work extensive ammounts of overtime and shift work.

000349

CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY1996/1997 Biennial Budget Estimates								
B. Component/Business Area/Date DON/R&D				C. Line. No & Description 35/CME RSX Processor Upgrade			D. Activity Identification NSWC - DAHLGREN DIVISION, PANAMA CITY					
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
ADP EQUIP							1	175	175			

Narrative Justification: (Productivity)

RSX processor upgrade to the 9780A computer in the Countermeasures Evaluator.

This upgrade will replace 37 obsolete central processing unit boards with one current technology processing board that will outperform the 37 boards while consuming approximately $5,000 less electricity per year. Additionally, maintainence costs will be reduced by $61,000 per year resulting in total savings of $66,000 per year.

If this procurement is not made, the potential savings of $66K will not be achieved.

CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY1996/1997 Biennial Budget Estimates								
B. Component/Business Area/Date DON/R&D				C. Line. No & Description 36/CORPORATE DATABASE UPGRADE			D. Activity Identification NSWC - DAHLGREN DIVISION, DAHLGREN					
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
ADP EQUIP							VAR		326			

Narrative Justification: (Productivity)

A Center-wide database providing program management and project information is available to scientists, engineers, program and line managers. This database will be constructed with an open system architecture which is compliant with FIPS 151 and supported by relational database management systems which are compliant with FIPS 127. This procurement consists of client workstations in FY95 and FY96, as well as a database server and data archiving hardware in FY96. It will be augmented by database software and data retrieval software to be acquired in FY95, FY96, and FY97.

The Corporate Database is necessary to host a repository of information. This acquisition will improve productivity in the following ways: (a) eliminate the need for each technical program to maintain separate, duplicative automated systems for maintaining and tracking program, project and management information; (b) improve productivity of technical personnel by requiring less time for compiling, analyzing and reporting information, thus allowing more time for technical work; (c) reduce reliance on hardcopy reports and replace them with electronic query; and (d) reduce printing distribution costs by allowing distributed printing "on-location" for the reports that are necessary.

Without the Corporate Database, productivity gains relative to managing and reporting information in the technical programs cannot be achieved. Each program will continue to rely on a variety of manual data sources; separate automated systems to collect and manipulate data will continue to be build and maintained, thus increasing costs and reducing the time available for performing technical tasks.

CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY1996/1997 Biennial Budget Estimates								
B. Component/Business Area/Date DON/R&D				C. Line. No & Description 37/Contracts Filing System			D. Activity Identification NSWC - DAHLGREN DIVISION, PANAMA CITY					
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
ADP EQUIP							1	295	295			

Narrative Justification: (Productivity)

Laser disk filing system to replace current manual filing system for Station contracts.

The Contracts Filing System is a laser disk optical filing system that takes advantage of the latest technology for storing and retrieving large files. Considerable manpower is currently being expended inefficiently developing, maintaining, and retrieving information from hardcopy files in the Station's contracting offices. Additionally, valuable space is being taken up by the bulky files, particularly by files that are closed but must be retained. There is also the constant problem of degradation of the paper files as they are researched or examined during audits and IGs. The proposed equipment will provide an economical means of storage, search, and retrieval from each individual's workstation or from other Station offices, thereby saving time of employee travel to the current file areas.

If this procurement is not completed, the current wasteful situation will continue to exist and the advantages of optical storage capability networked to computers in other offices via a local area network will be ignored.

0003552

CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY1996/1997 Biennial Budget Estimates								
B. Component/Business Area/Date DON/R&D				C. Line. No & Description 38/DIGITAL TECHNOLOGY WORKSTATIONS & DISK DRIVES			D. Activity Identification NSWC - DAHLGREN DIVISION, DAHLGREN					
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
ADP EQUIP										VAR		130

Narrative Justification: (Productivity)

This investment will provide SGI Graphics workstations and upgrade existing DEC stations to support the development of advanced realtime operating systems. These workstations will be used to demonstrate 3D graphics, high-quality video in graphics, speech recognition, and the use of advanced multi-media concepts and their combat systems applications.

These advances will improve the quality and effectiveness of man-machine interfaces by providing a greater information bandwidth between the operator and computing equipment so more information can be transferred, analyzed, and acted upon in a shorter period of time. The development of advanced realtime operating systems is critical to future combat systems development, operations, and training. This procurement supports combat system prototyping efforts such as HiPer-D and future ship technology programs such as ship automation and autonomic ship programs. In addition, the realtime operating systems efforts will be applicable to a wide range of next generation realtime systems.

The graphics technology has the capability of providing a very significant improvement in combat systems development, operations and training through the increased bandwidth provided by the audio, 3D graphics, and high-quality video. This technology represents the future of man-machine interfaces. It is one of the enabling technologies for manpower reduction in future combat systems. An advanced realtime operating system is critical to future combat systems.

000353

CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY1996/1997 Biennial Budget Estimates								
B. Component/Business Area/Date DON/R&D				C. Line. No & Description 39/ENG & TECH WORKSTATIONS				D. Activity Identification NSWC - CRANE DIVISION, CRANE				
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
ADP EQUIP							1	155	155			

Narrative Justification: (Productivity)

Engineering and Technical Documentation Workstations. Intergraph NAVSEA Computer Aided Design-2 (CAD-2) Systems.

This project is for the Advanced Navigation Command & Control Engineering Branch. The workstations would replace old fashioned manual methods of modeling and analysis. Computer Aided Engineering programs will allow shipboard electrical and mechanical safety concerns to be more easily discovered and corrected. More human resources will also be available to study safety concerns. New equipment and software will free engineers and technicians to more thoroughly address environmental concerns.

Provide computer aided drafting and engineering modeling capabilities. Provide technical illustration, scanning, mechanical and electrical analysis capabilities for the Advanced Navagation Command and Control Engineering Branch. The alternative is to remain with the current manual system.

P-23,000

CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY1996/1997 Biennial Budget Estimates								
B. Component/Business Area/Date DON/R&D				C. Line. No & Description 40/ENGINEERING ENVIRONMENT				D. Activity Identification NSWC - DAHLGREN DIVISION, DAHLGREN				
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
ADP EQUIP							1	60	60	VAR		260

Narrative Justification: (Productivity)

This investment is required to support the Engineering Environment thrust. It consists of two SGI workstation upgrades in FY96 and in FY97 as well as a memory/processor, computer server, and two additional workstations in FY97. This thrust provides a corporate environment for the design, documentation, analysis, as well as modeling and simulation capabilities, for weapons systems development.

This equipment provides expanded mechanical design capabilities, analyses, and prototyping and will increase productivity by strealining the design process. Programs supported include Vertical Launch System (VLS), STANDARD Missile, Short Range Anti-tank Weapon (SRAW), and Shoulder-Launched Multi-purpose Assault Weapon (SMAW).

This equipment is needed to effectively perform projected tasking. Without it, additional labor will be required and some tasks will be difficult, if not impossible, to perform.

000355

CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY1996/1997 Biennial Budget Estimates								
B. Component/Business Area/Date DON/R&D				C. Line. No & Description 41/ENGINEERING LIBRARY - PC					D. Activity Identification NSWC - DAHLGREN DIVISION, PANAMA CITY			
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
ADP EQUIP										1	220	220

Narrative Justification: (Productivity)

Expand/upgrade the capability for on-line engineering and related Engineering Library services. The upgrade will provide scanner input stations, optical character recognition capability, hard copy output devices and associated servers that will connect to the LAN/ethernet communications network to distribute the services to users.

Currently the Engineering Library maintains engineering drawings, technical documents and reference materials on microfilm, microfiche and hard copy. Engineers, technicians and other users desiring access to this information must visit the Engineering Library and manually search for and copy from single copy media on file. Additionally, access to CD-ROM services is limited to a single PC which frequently leaves engineers waiting to gain access due to high demand. A limited pilot system has been installed to test and assess the advantages of accessing Engineering Library services from the desktop. The results have indicated the need to expand the capability to all users.

Failure to complete this project would prevent achievement of potential time savings and increased convenience to users.

000356

CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY1996/1997 Biennial Budget Estimates								
B. Component/Business Area/Date DON/R&D				C. Line. No & Description 42/FRONT-END SYSTEMS UPGRADE			D. Activity Identification NSWC - DAHLGREN DIVISION, DAHLGREN					
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
ADP EQUIP							VAR		126	VAR		63

Narrative Justification: (Productivity)

This investment expands the existing Front-End System capacity and capabilities developed to implement and support reengineered business processes, cut cost and improve overall process productivity. Three workstations (one each in FY95, FY96, and FY97) will be procured to increase the number of users that access and use the new streamlined processes using the Client/Server architecture and relational database. Associated database software will also be acquired, as will be applications and forms software.

Current processes are labor intensive, slow, cumbersome, too costly to operate and add substantial cost to NSWCDD customer products. Three alternatives exist: (1) continue reliance on manual/semi-automated processes; (2) implement reengineered processes but limit number of users who can access and use the new processes; and (3) expand system capabilities to allow distribution of new processes across the organization. Alternative (1) locks in higher costs of doing business and/or slower processes as the number of resources decline. Alternative (2) allows cost savings to be achieved but suboptimizes the amounts by restricting the number of reengineered processes to be deployed and the number of people who can access them. Alternative (3) allows the cost reductions and productivity benefits to be maximized across the organization. This investment provides the software tools and computing capabilities necessary to reduce process costs and inefficiencies as DOD downsizing continues.

This investment will reduce operational cost and achieve large scale productivity gains in a time of declining resources and sponsor funds. NSWCDD sponsors will be impacted through (1) higher manhour rates charged for technical work and (2) more direct labor charged for program management support activities.

CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY1996/1997 Biennial Budget Estimates								
B. Component/Business Area/Date DON/R&D				C. Line. No & Description 43/IPE WORKSTATIONS				D. Activity Identification NSWC - DAHLGREN DIVISION, DAHLGREN				
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
ADP EQUIP										5	50	250

Narrative Justification: (Productivity)

The Integrated Programming Environment (IPE) supports software development by integrating the capabilities of graphics desktop computers with existing computer systems. The intent is to delegate development tasks to the lowest cost-part of the integrated environment by partitioning of tasks to the most efficient machine for that task.

The IPE initiative is not simply a replacement or upgrade of current capabilities, it represents a method to significantly enhance the software development process by adding functionality currently available only in a very limited sense. For example, with the current small set of hardware and software available, only a small number of developers can access the system so that a contention for resources inhibits productivity. The IPE provides a method whereby more people can simultaneously access both graphical development environments and test software systems through the interconnection with other computing systems. An economic analysis has been performed for this investment yielding a Savings to Investment Ratio of 1.2.

Currently, there is no low-cost IPE that supports proof of concept research and development addressing proposed future system capabilities such as rapid re-targeting or accurate re-entry systems.

000358

CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY1996/1997 Biennial Budget Estimates								
B. Component/Business Area/Date DON/R&D				C. Line. No & Description 44/LIGHTS OUT PGC			D. Activity Identification NSWC - PORT HUENEME DIVISION, DAM NECK					
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
ADP EQUIP							1	100	100	1	118	118

Narrative Justification: (Productivity)

Workstation, memory, disk, software.

This is a phased project (FY96-97). Currently our Program Generation Center (PGC) provides all major support for building Advanced Combat Direction System programs for fleet delivery. PGC is comprised of 14 main frame computer systems and is staffed 24 hours a day. Seventy five percent of the current staffing is military personnel. Recent directives project a 50% cut in our military manning. The lights out project will provide central system monitoring failure alerting, and automated back up capabilities totally eliminating the need for operator support on the midnight shift. This project spans two fiscal years; FY 96 and FY 97.

The Program Generation Center (PGC) absolutely must operate 24 hours a day. Without this equipment we will have to hire contractors to provide PHD support for Advanced Combat Direction System (ACDS) program production. This approach will most certainly increase production costs because all after-hours support is currently provided by military personnel.

000239

CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY1996/1997 Biennial Budget Estimates								
B. Component/Business Area/Date DON/R&D				C. Line. No & Description 45/LINKS HARDWARE			D. Activity Identification NSWC - DAHLGREN DIVISION, DAHLGREN					
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
ADP EQUIP							2	50	100	2	50	100

Narrative Justification: (Productivity)

The Links project will provide standard connectivity between existing personal computers and desktop devices currently configured as multiple subnets connected to the NSWCDD backbone. By utilizing Links unix-based multi-processor computers and off-the-shelf software to connect the installed base of user devices, scientists and engineers can share information across these subnets and can access standard Center applications for their program management and engineering support.

The Links standard system configuration will allow the PCs and desk top devices of the scientists and engineers that are decentralized on different subnets (e.g., Novell, DECNET, Appletalk, NSWCNET) to easily share information. By utilizing Links, the different subnets will not have to duplicate effort and spend resources to provide connectivity with each subnet they need to communicate with. In addition, Links will provide a standard access method to Center applications that each subnet can utilize. An economic analysis has been performed for this investment yielding a Savings to Investment Ratio (SIR) of 1.1.

Without Links, each subnet will have to provide a mechanism for sharing information with each of the different subnets that their users need to communicate with, or have no communication and sharing of information outside of their own subnet.

000360

CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY1996/1997 Biennial Budget Estimates								
B. Component/Business Area/Date DON/R&D				C. Line. No & Description 46/Mine Warfare Modeling & Simulation WS				D. Activity Identification NSWC - DAHLGREN DIVISION, PANAMA CITY				
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
ADP EQUIP										3	54	162
INSTALLATION												1
TOTAL												163

Narrative Justification: (Productivity)

Purchase TAC-3 systems to host the Mine Warfare simulation capability.

This TAC procurement will enable COASTSYSTA to provide generalized mine warfare simulation capabilities. Currently, simulation of mine warfare systems is being performed on an individual system level with a different simulation being developed for each system. This procurement would be used to develop a more generalized simulation thus eliminating redundant simulation development. The TAC system would provide workstation performance compatible with UNIX development environments along with the capability of integration aboard fleet ships.

Not purchasing this TAC system would result in the inability to provide adequate modeling and simulation to fleet commanders and a continued redundancy in simulation development resulting in wasted sponsor funds.

CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY1996/1997 Biennial Budget Estimates								
B. Component/Business Area/Date DON/R&D				C. Line. No & Description 61/Misc ADP Equip Rep Items< 100K			D. Activity Identification Naval Warfare Centers					
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
ADP EQUIP							VAR		857	VAR		95

Narrative Justification: (Replacement)

This investment replaces aged ADP equipment that is beyond economical repair and will reduce downtime and maintenance. Examples of this type of investment are Therminal Servers, LIMDIS CAD II System, Hi Capacity Lazer, and a 3D Graphics Station.

000362

CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY1996/1997 Biennial Budget Estimates								
B. Component/Business Area/Date DON/R&D				C. Line. No & Description 47/Office Automation Applications Network				D. Activity Identification NSWC - DAHLGREN DIVISION, PANAMA CITY				
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
ADP EQUIP										1	450	450

Narrative Justification: (Productivity)

A system of distributed servers providing shared access to common office automation software, including word processing, business graphics, spreadsheet, and scheduling applications.

COASTSYSTA employees typically utilize single-license software for office automation tasks with the software resident on each employee's personal computer (PC). This approach maximizes individual flexibility but forces personnel to spend time on PC configuration maintenance that could be spent on their actual duties. In addition, COASTSYSTA pays for much more software than is simultaneous use. Sharing software via an applications network will result in considerable savings.

Failure to acquire and deploy this system will result in perpetuation of the status quo. Every employee who has a requirement for a software package, however transient or infrequent that need may be, will continue to acquire independent copies of software. Potential savings will not be realized.

0002562

CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY1996/1997 Biennial Budget Estimates								
B. Component/Business Area/Date DON/R&D				C. Line. No & Description 48/REENTRY SYSTEM SIMULATOR UPGRADE			D. Activity Identification NSWC - DAHLGREN DIVISION, DAHLGREN					
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
ADP EQUIP							VAR		200			

Narrative Justification: (Productivity)

The Reentry System Simulator is used to conduct sophisticated aerothermal, structural, and reentry trajectory analyses, and for data reduction of wind tunnel tests. This investment will replace an aging VAX 11/785 with workstations and provide an uninterruptible power supply to ensure continuous processing on the system.

The Reentry System Simulator computer system currently consists of a VAX 4000 computer and a VAX 11/785. The VAX 11/785 has become very expensive to maintain and provides inadequate capability to perform the analysis and simulation now required. Performance will be greatly increased, allowing the simulation of more advanced reentry systems requiring a high speed computing environment. The simulator supports strategic weapons systems such as Strategic Defense Initiative (SDI), MK-5 Reentry Body Program, Reentry Technology Efforts, and Weapon and Spacecraft Materials.

Structural analysis capability and the ability to analyze fluid flows is greatly restricted by our current computer facility. Without these upgrades, we will be unable to meet program requirements.

000564

CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY1996/1997 Biennial Budget Estimates								
B. Component/Business Area/Date DON/R&D				C. Line. No & Description 49/TACTICAL ADVANCED COMPUTER NETWORK				D. Activity Identification NSWC - CRANE DIVISION, CRANE				
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
ADP EQUIP							1	100	100			

Narrative Justification: (Productivity)

This system will consist of the hardware and software tools necessary to intergrate computer aided design tools and existing hardware simulation tools. Through the use of these tools, system specifications may be heirarchically modeled and validated more efficiently to ensure specification compliance.

This project will provide a productivity increase due to faster comprehension of module design and therefore a faster turn around time for design analysis and technical assessments to the program office. In order to comply with projected government software/communications standards this network is vital.

This will allow the development of test program sets to be performed more efficiently, for example, an average test engineer can now develope 3 test programs per year, which could be improved to 6 test programs per year. In addition to the inherent speed improvement of this system, will be the ease of data transportability between different networks. This system will allow us to use electronic design data directly for evaluation and developments which eliminates costly data transfer errors.

CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY1996/1997 Biennial Budget Estimates								
B. Component/Business Area/Date DON/R&D				C. Line. No & Description 50/UNIX WORKSTATIONS			D. Activity Identification NSWC - PORT HUENEME DIVISION, DAM NECK					
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
ADP EQUIP							1	107	107			

Narrative Justification: (Productivity)

Risk based workstations to be used to perform network and workstation management.

Risk based workstations are used by the command to develop, maintain, integrate and produce tactical programs for militarized workstations aboard US Navy ships. We currently have workstations that need various system administrator functions which include, but are not limited to: system backups, network management, user account management, software and hardware installations, configuration management and user assistance.

In order to support the additional workload dictated by increasingly technical management systems, the number of workstations need to be expanded to allow all system administrator team members access, otherwise team members will not be able to quickly respond to problems when reported. Additionally, the quantity of support software to be supported by the system administration team is rapidly increasing. Team memebers must be familiar with all supporting software inorder to aid users. The only way to accomplish this is to procure more workstations.

000366

CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY1996/1997 Biennial Budget Estimates								
B. Component/Business Area/Date DON/R&D				C. Line. No & Description 51/MODELING AND SIMULATION CENTER EQUIPMENT			D. Activity Identification NSWC - DAHLGREN DIVISION, DAHLGREN					
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
ADP EQUIP							VAR		700	VAR		555

Narrative Justification: (New Mission)

This procurement provides high performance computing equipment to support multi-warfare, force-level simulations and model development. The following specifics are planned: an SGI Onyx 4CPU Reality Engine2 and an SGI Onyx 2CPU VTX in FY94, upgrading two existing SGI 4D/340 computers to SGI Reality Engines in FY95, three additional SGI 4CPU Reality Engine2s in FY96 with upgrades in FY97.

The Defense Modeling and Simulation Initiative (DMSI) was begun in 1991 to strengthen Modeling and Simulation (M&S) applications within DOD. To achieve expected contributions requires widespread, highly capable, and integrated M&S environments based on common DOD-wide architectures, methodologies, and interoperability standards. DMSI supports those aspects of the overall environment that tie together DOD components as broadening the warfighting effectiveness. Data is no longer only text and numeric; representation of video and graphic images, and compression techniques to enhance storage and transmission must be addressed within database contexts to suppport display and processing environments. The speed and capacities of these processors are the cornerstones of multimedia and synthetic environments. It was discovered during the WAR BREAKER "Zen Regard" exercises that 4 CPU Onyx machines are required to handle the communication and processing loads in large exercises.

The M&S community recognizes the need for interoperability of models and simulations at different levels of aggregation, operating at varying levels of resolution, with a diverse treatment of time. Concepts of force at sea, on land, or in the air and within the operational environment are likely to be different in these simulations, yet the need to interoperate remains. NSWCDD requires these investments to continue effective interoperations with Air Force, Army, and ARPA simulations in WAR BREAKER.

000267

CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY1996/1997 Biennial Budget Estimates								
B. Component/Business Area/Date DON/R&D				C. Line. No & Description 52/ADVANCED WEAPONS CONTROL SYSTEM			D. Activity Identification NSWC - DAHLGREN DIVISION, DAHLGREN					
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
ADP EQUIP							VAR		385	VAR		455

Narrative Justification: (New Mission)

The Advanced Weapon Control System will provide a real-time, far-term weapon control simulation/development tool for demonstration, validation, and assessment of technological improvements in control elements, processing, interfaces, and display environments. This investment consists of two workstations, Futurebus+ cardcages, and FDDI lan nodes in FY95; and an advanced display system and Rational-Apex for networked engineering workstations in FY96.

This equipment upgrades and expands capabilities for the development of automated, quick reaction control systems dealing with ship self-defense. It is essential to effectively validate, assess and demonstrate technological improvements in control elements, processing, interfaces, and display environments. These efforts support the Ship Self Defense Program, Close In Weapons Systems (CIWS), and Warfighting Improvement Project (WIP).

Failure to procure this equipment will unduly impact efficiency and productivity of systems development and thereby impact the deployment of new systems.

CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY1996/1997 Biennial Budget Estimates								
B. Component/Business Area/Date DON/R&D				C. Line. No & Description 53/ALGORITHM DEVELOPMENT FACILITY: SGI ONYX COMPUTER			D. Activity Identification NSWC - DAHLGREN DIVISION, DAHLGREN					
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
ADP EQUIP							6	20	120			

Narrative Justification: (New Mission)

The Algorithm Development Facility supports a new approach to near real time operations with parallel processing and high speed visualization. The FY95 procurement will provide the basic two-processor parallel computing engine (Onyx computer) that will be expanded to eight processors in FY96, providing near real-time simulation support.

The complexity of large strike warfare systems (from detect systems to control and engagement systems) coupled with reduced DOD funding for hardware prototyping and test is forcing increased dependence on simulation and visualization. In order to meet future strike warfare needs, NSWCDD must be able to (a) develop, demonstrate, and test future strike warfare concepts using complex (near-real time) simulations, and (b) provide near-real time visualization support for complex simulations. These purchases support high speed visualization, high speed simulation, and image processing/satellite multispectral technology. This equipment will support new strike warfare and upper tier anti-tactical ballistic missile simulation and analysis studies.

High speed algorithms, that can operate in parallel are essential for support of strike warfare (particularly counter battery fire). Driven by the need to respond against highly mobile (time critical) targets in near-real time, the mission planning and weapon contrl systems can no longer sustain serial operations that take minutes to hours. Strike operations with the next generation of weapons (ballistic missiles) must take place in a total engagement time budget measured in seconds.

000369

CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY1996/1997 Biennial Budget Estimates								
B. Component/Business Area/Date DON/R&D				C. Line. No & Description 54/ARRAY PROCESSORS				D. Activity Identification NSWC - DAHLGREN DIVISION, DAHLGREN				
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
ADP EQUIP										VAR		175

Narrative Justification: (New Mission)

The Algorithm Development Network Thrust provides the environment to research various signal/data processing algorithms and candidate implementation strategies. This equipment provides a heterogeneous mix of processors operating with a mix of languages in various architectural workstation configurations.

Prototyping of these algorithms and new architectural concepts will help solve real-time shipboard computer needs. The structured techniques will also provide insight to productivity enhancement techniques. The designs will support strong reuse where various at-sea configurations are built, which will further reduce insertion costs. These strategies are in direct support of at least five of the DOD top-twenty technology thrusts. This thrust area supports specific strategic computing thrusts in various NAVSEA/PEO programs (AN/SQQ-89, SSTD, Mine Warfare, ASTO, and SEA 06K, PMS-400/AEGIS) and technology programs in ONT (ASW/ECS Blocks), DARPA (SCI), and SPAWAR (NGCR).

As the programs within the current missions evolve , NSWCDD needs to maintain its competitive knowledge in order to provide sponsors correct and timely guidance. Researchers can hypothesize various algorithms, but without the supporting hardware and software the required experimentation cannot be accomplished. The proposed procurement strategy enables development, experimentation and "lessons learned" directly applicable to the sponsors trying to evolve to COTS solutions. This capability is presently unavailable.

0003?0

CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY1996/1997 Biennial Budget Estimates								
B. Component/Business Area/Date DON/R&D				C. Line. No & Description 55/CLASSIFIED NETWORK					D. Activity Identification NSWC - PORT HUENEME DIVISION, PORT HUENEME			
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
ADP EQUIP							1	158	158			

Narrative Justification: (New Mission)

Networking devices such as high density terminal servers, multi-port Ethernet concentrators, high-speed networking bridges/routers, optical fiber transmission equipment, telecommunication devices, and high-speed encryption devices.

To satisfy the command's growing need for the transmission of classified data, signature approval authority, and transition to a full functioning "paperless office" environment.

The command will be unable to transmit classified data and will be unable to handle NAVSEA's and the Engineering Project Offices classified transmission requirements.

000371

CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY1996/1997 Biennial Budget Estimates								
B. Component/Business Area/Date DON/R&D				C. Line. No & Description 56/CME 3-D Graphics Display System			D. Activity Identification NSWC - DAHLGREN DIVISION, PANAMA CITY					
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
ADP EQUIP							1	160	160			

Narrative Justification: (New Mission)

High-end multi-processor Silicon Graphics 3-dimensional computational graphics engine workstation.

Required by the Mine Warfare Analysis And Tactics Facility (MATF) to bring basic mine warfare models, algorithms, and technical expertise together into an integrated simulation capability. The MATF will allow the R&D and operational communities to participate in the joint synthetic battlefield environment becoming available throughout DOD. The graphics display system will provide real time display of the simulated operations to participants.

If this system is not procured, the MATF will not have the visual interface to allow users to participate in the simulated operations.

CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY1996/1997 Biennial Budget Estimates								
B. Component/Business Area/Date DON/R&D				C. Line. No & Description 57/CME Workstations			D. Activity Identification NSWC - DAHLGREN DIVISION, PANAMA CITY					
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
ADP EQUIP							VAR		150	VAR		150

Narrative Justification: (New Mission)

Eight Digital Equipment Corporation ALPHA workstations.

Required by the Mine Warfare Analysis And Tactics Facility (MATF) to bring the basic mine warfare models, algorithms, and technical expertise together into an integrated simulation capability. The MATF will allow the R&D and operational communities to participate in the joint synthetic battlefield environment that is becoming available throughout DOD. These workstations will provide the ability to network the various participants at different locations together during simulated operations.

If these workstations are not procured, the MATF will not be able to function and customers requiring simulated operations and studies will have to be turned away.

0003573

CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY1996/1997 Biennial Budget Estimates								
B. Component/Business Area/Date DON/R&D				C. Line. No & Description 58/DEFENSE MESSAGING (DMS)			D. Activity Identification NSWC - PORT HUENEME DIVISION, PORT HUENEME					
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
ADP EQUIP										1	200	200

Narrative Justification: (New Mission)

Specialized encryption equipment is necessary to meet the needs of PHD NSWC as the Naval Telecommunications Center (NTCC) Pt. Mugu is in the process of closing. This project is a multiple year endeavor, encompassing both FY95 and FY97. This project is a continuation of the endeavor scheduled in FY95.

NTCC Pt. Mugu and their parent command have discontinued the practice of providing Naval Message traffic in paper form. Additionally NTCC Pt Mugu will be closing early in FY95. This will provide the necessary equipment, software, and maintenance support to put in place an automated process to adequately control and distribute Naval Messages in the new paperless environment without the support of NTCC Pt. Mugu. This also is driven by the early implementation of the navy wide Defense Message System (DMS).

Without this new equipment the command will be unable to adequately provide timely and efficient support to our fleet customers. Our ability to receive and respond to urgent Casualty Reports (CASREP) and technical assist requests will be severely limited. The readiness of the U.S. Navy to provide fighting capability on short notice will be diminished.

CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY1996/1997 Biennial Budget Estimates								
B. Component/Business Area/Date DON/R&D				C. Line. No & Description 59/PROTOTYPING LABORATORY: WORKSTATIONS				D. Activity Identification NSWC - DAHLGREN DIVISION, DAHLGREN				
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
ADP EQUIP										VAR		200

Narrative Justification: (New Mission)

The Prototying Laboratory thrust provides for (1) real time opeating systems and computer networking protocols and (2) integration of high speed parallel processors with conventional serial computers and networks. This capability supports the newly emerging operational requirement for time critical strike warfare as well as the mission and route planning efforts. This investment provides TAC IV workstations in FY95 and TAC V workstations/servers in FY97.

Strike warfare weapons must respond to new requirements for a wide variety of new time critical and joint war fighting strategies and weapons which will directly impact the future uses of cruise missiles and influence the development of a new class of strike weapons. Future versions of cruise missiles will be required to attack as well as evade mobile defense sites, respond to joint air tasking orders in hours or minutes, and search out and destroy mobile (time critical) weapons. The operating systems, missions planning, and weapon control systems for the current versions are not sufficiently responsive to meet these future requirements. These workstations will support three technical thrusts vital to developing new principal strike weapons product lines, namely (1) real time operating systems for mission planning and advanced weapon control systems, (2) high speed networking to support the demands for increased near-real time database management (imagery and mobile target/defense site attributes), and (3) development and test of new computer/network architectures that support the addition of parallel processors.

The complexity of large strike warfare systems (from detect systems to control and engagement systems) will grow enormously with the addition of real time computing, real time networking, and parallel computing. The current laboratory is not capable of prototyping and testing the complex computer systems required for future strike weapons.

0003273

CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)							A. Budget Submission FY1996/1997 Biennial Budget Estimates					
B. Component/Business Area/Date DON/R&D				C. Line. No & Description 60/SPARC/Assessment System			D. Activity Identification NSWC - CARDEROCK DIVISION, CARDEROCK					
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
ADP EQUIP										1	130	130

Narrative Justification: (New Mission)

This project will procure an additional UNIX-based 100 million instructions per second (mips) workstation, enhancenment upgrade of three existing workstations from 50 mips to 80 mips, and a multiprocessor batch mode-compute-server, with each processor of at least 200 mips capability.

The Simulation Planning & Analysis Research Center (SPARC) at the Carderock Division, Naval Surface Warfare Center (CARDEROCKDIV, NSWC) performs simulations and assessments of naval systems. SPARC is presently capable of performing 440 mips. Current simulations, including simulation based design, of interest to the Department of Defense (DoD) are mathematical models exceeding 500,000 lines of computer code. An increase in processing speed to at least 1200 mips is necessary in order to maintain reasonable turnaround times. This project will boost SPARC to 1700 mips. Without this increase sponsor schedules cannot be met, jeopardizing about $4.5M in direct funding.

Failure to fund this project will result in continued high contracting costs in order to meet customer requirements and the loss of additional direct revenue from the inability to support additional work with this facility.

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION
($ in Thousands)

A. Budget Submission
FY 1996/FY 1997 President"s Budget

B. Component/Business Area/Date
NAVY R&D/Depot Maintenance/
Jan-95

C. Line No. & Item Description #
Depot Maintenance Standard System (DMSS) ADPE Equipment

D. Activity Identification
Joint Logistics Systems Center

	FY 1994			FY 1995			FY 1996			FY 1997		
Element of Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost
Hardware:												
Mid Tier			0.0			249.0			177.0			0.0
User Level			0.0			75.0			283.0			0.0
TOTAL			0.0			324.0			460.0			0.0

Narrative Justification:

These funds are to support the fielding of the Depot Maintenance Standard System (DMSS) being developed by the Joint Logistics System Center to the Navy R&D maintenance depots. During the recent budget review, the responsibility for acquisition of hardware was transferred from the JLSC to the Military Services.

The Depot Maintenance Standard System (DMSS) was created in response to the DoD initiative to standardize logistics systems across DoD and the Military Services' related need for a more robust information systems technical infrastructure in their depots. Over the past two years, the Joint Logistics Systems Center (JLSC), working with the Services, has evaluated the business processes of the depots, investigated alternative maintenance management concepts and reviewed the Services' legacy environment, depot AIS development efforts and commercially available systems. These efforts have sustained the need to modernize the platforms and hardware represented by this submittal.

DMSS will provide the Services a revolutionary step forward in functional capability and automation, including a systems infrastructure upon which to make significant strides in business process improvement. Benefits will be realized in two primary areas: business performance and information systems costs. Business performance will be enhanced through the process improvements delivered by DMSS applications to support the Depot Maintenance Improved Functional Baseline (IFB). These improvements include:

Reduced inventories through improved planning and tracking
Reduced labor through better resource and work planning

000377

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION
($ in Thousands)

		A. Budget Submission FY 1996/FY 1997 President"s Budget
B. Component/Business Area/Date NAVY R&D/Depot Maintenance/ Jan-95	C. Line No. & Item Description # Depot Maintenance Standard System (DMSS) ADPE Equipment	D. Activity Identification Joint Logistics Systems Center

Narrative Justification (Continuation):

Reduced overhead through automation and the elimination of non value-added activity

Shorter cycle times through better planning and management information to control operations

Improved schedule performance through more complete asset visibility

Once implementation is complete and legacy applications are reduced or eliminated, ADP costs will come down markedly.

Without this investment, needed improvements to the depot/shipyard business process and infrastructure will not be achieved. Implementing enhanced repair and overhaul capabilities is a critical contribution toward improving mission readiness in a downsizing environment. As the DoD weapon systems continue to age, reductions to the workforce continue and the number of depots/shipyards are reduced, efficient and effective organic repair capability is of increasingly growing importance to DoD in maintaining weapon systems combat readines• In order to meet this demand, the depot/shipyard community needs to dramatically strengthen its business processes and the associated information infrastructure (hardware).

000378

CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY1996/1997 Biennial Budget Estimates								
B. Component/Business Area/Date DON/R&D				C. Line. No & Description 62/Misc ADP Equip Prod Items< 100K				D. Activity Identification Naval Warfare Centers				
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
ADP EQUIP							VAR		162	VAR		69

Narrative Justification: (Productivity)

This investment purchases productivity related ADP items which improve the quality and efficiency of the work performed at the Naval Surface Warfare Center. Examples of these Productivity ADPE purchases include: NC/CAM Optical Jukebox, Classified Engineering File, Enhanced Engineering Tool, and a Presentation Graphic System.

CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY1996/1997 Biennial Budget Estimates								
B. Component/Business Area/Date DON/R&D				C. Line. No & Description 63/Misc ADP Equip New Mission Items< 100K			D. Activity Identification Naval Warfare Centers					
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
ADP EQUIP							VAR		62	VAR		167

Narrative Justification: (New Mission)

Examples of New Mission ADPE to be purchased are Advanced Computation System, Test Facilities Dual Computer System, and a Hydromechanics CAD II Workstation.

CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY1996/1997 Biennial Budget Estimates								
B. Component/Business Area/Date DON/R&D				C. Line. No & Description 64/LAN Fiber Backbone			D. Activity Identification NSWC - DAHLGREN DIVISION, PANAMA CITY					
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
TELECOM EQUIP							1	200	200	1	200	200

Narrative Justification: (Replacement)

Four year program to replace high traffic segments of the current copper-based local area network (LAN) with fiber optics. Includes cable and necessary equipment.

The existing 5 megabit local area network backbone will not support widespread use of multi-media, server based applications, or use of X-terminal technologies. Use of fiber optics technology on high density segments will provide an immediate 20-fold increase in throughput capacity to support the increasingly used high bandwith technologies that need significantly higher data rates.

Without this project, demands to share or transfer ever-increasing amounts of information will saturate the existing copper-based LAN backbone. Users will experience increasing delays in transferring data and information, until the backbone saturates and throughput falls close to zero in this contention-based network.

000381

CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY1996/1997 Biennial Budget Estimates								
B. Component/Business Area/Date DON/R&D				C. Line. No & Description 65/NETWORKS			D. Activity Identification NSWC - DAHLGREN DIVISION, DAHLGREN					
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
TELECOM EQUIP										VAR		369

Narrative Justification: (Replacement)

NSWCDD is in the process of expanding and enhancing its communications infrastructure. A multi-year effort to install a high speed media trunking system will be completed in FY93. These networks primarily serve the scientific and engineering staff, providing access to scientific computing resources and permitting local area networking of research workstations. The networks support Fleet needs of such programs as the Submarine Launched Ballistic Missile (SLBM), AEGIS Combat Systems, STANDARD Missile, TOMAHAWK, and Advanced Sea Mine. They allow the integration of distributed ADP resources, both secure and unclassified. This investment is for the routers, bridgers, and control systems needed to implement the networks on the new trunking system.

Benefits include better use of existing resources through interconnection, widespread access to tools and computer resources, and effective access to external activities. Expanded and enhanced networks will allow scientists and engineers to work more effectively due to data sharing capability and to save time and money due to higher speed, more reliable communications. An economic analysis has been performed for this investment yielding a Savings to Investment Ratio (SIR) of 1.9.

CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY1996/1997 Biennial Budget Estimates								
B. Component/Business Area/Date DON/R&D				C. Line. No & Description 66/DTNET Extensions			D. Activity Identification NSWC - CARDEROCK DIVISION, CARDEROCK					
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
TELECOM EQUIP							1	100	100	1	600	600

Narrative Justification: (New Mission)

The David taylor Network (DTNET) is an integrated data/audio/video Division-wide network serving the Carderock Division, Naval Surface Warfare Center (CARDEROCKDIV, NSWC).

Funding is required annually to extend DTNET to areas of the Division which do not have service. The funding is used to install cabling and terminal drops in new and existing buildings where there is no service. The addition of the Naval Ship Systems Engineering Station (NAVSSES), Philadelphia, Pennsylvania, and activities at Fort Lauderdale, Florida, and White Oak, Maryland to CARDEROCDIV has altered the requirements for DTNET service from what was initially envisioned. Service must be provided where it does not currently exist. Furthermore, the current net uses copper wire lines. This technology is too limited to meet future needs. All new extensions of DTNET will use fiber optic technology. Beginning in Fiscal Year 1997, the core of DTNET will also be converted to fiber optic.

Failure to fund this project will result in the inability to meet customer requirements.

000242

CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY1996/1997 Biennial Budget Estimates								
B. Component/Business Area/Date DON/R&D				C. Line. No & Description 67/LAN Open Systems Database Server			D. Activity Identification NSWC - DAHLGREN DIVISION, PANAMA CITY					
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
TELECOM EQUIP							1	250	250			

Narrative Justification: (New Mission)

Open systems (i.e., POSIX or UNIX) database server providing high-performance database creation, update, and search and retrieval hardware resources for relational, binary large object, and object-oriented database management systems.

This acquisition is based on projected changes in DOD, DON, and especially NAVSEA system architectures. NAVSEA's Information Resources Strategic Plan mandates transition to standards-based computing and most applications are moving toward distributed database concepts. By FY96, COASTSYSTA expects to support new data warehousing applications allowing local manipulation of corporate data supporting executive information and decision-making on local processors. This server will provide the database "backend" for the executive support system.

If this request and its associated software procurement are not funded, COASTSYSTA will be unable to conduct data warehousing and executive support on-site requiring remote processing at Dahlgren. This would generate requirements for wide-area networking in addition to the basic system requirements. These additional costs can be avoided by this procurement.

CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY1996/1997 Biennial Budget Estimates								
B. Component/Business Area/Date DON/R&D				C. Line. No & Description 68/LAN Plant Expansion					D. Activity Identification NSWC - DAHLGREN DIVISION, PANAMA CITY			
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
TELECOM EQUIP							1	50	50	1	55	55

Narrative Justification: (New Mission)

Provide local area network (LAN) service to personnel located in new construction or rennovated buildings and buildings with no current LAN service. Includes buried cable (fiber and copper) between buildings, ethernet wiring within buildings, bridges, and transceivers.

Personnel increasingly require access to LAN-based applications such as electronic mail, shared databases, access to host computers, and electronic exchange. Office and laboratory buildings without LAN services are no longer considered to be adequate. Services will be added to two new buildings in FY95, one rennovated building in FY96, and one building currently with no service in FY97.

Without LAN services, planned occupancy of these buildings will be thwarted as personnel located in them will have no capability to use electronic data interchange.

CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY1996/1997 Biennial Budget Estimates								
B. Component/Business Area/Date DON/R&D				C. Line. No & Description 69/SATELLITE DATA NETWORK INTERFACE			D. Activity Identification NSWC - PORT HUENEME DIVISION, PORT HUENEME					
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
TELECOM EQUIP							1	100	100	1	300	300

Narrative Justification: (New Mission)

Satellite dish/interface, communication interface, data processor, network interface and applications, disk storage, and connecting hardware.

At present, logistics products such as technical manual updates, training data, and weapon system data base updates are sent to ships at sea via mail in paper form which is time consuming and are costly. The products on board ships are in jeopardy of being out of date and when changes do arrive, there is the chance they will not be updated. This product will provide an electronic link to the fleet anywhere in the world. It will allow technical data and drawing to be sent to the ship at any time and continual updating of the weapon system data base. This project spans multiple years.

The logistics products on board ships will continue to be out of date and inaccurate causing increase cost in maintenance repair and contractor support to maintain the systems.

CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY1996/1997 Biennial Budget Estimates								
B. Component/Business Area/Date DON/R&D				C. Line. No & Description 70/Misc Telecomm Equipment Rep Items< 100K			D. Activity Identification Naval Warfare Centers					
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
TELECOM EQUIP										VAR		50

Narrative Justification: (Replacement)

This investment replaces aged Telecommunication equipment that is beyond economical repair and will also reduce downtime and maintenance. Examples of Replacemnt Telecommunications are Phone Switch Upgrade and Engineering Network.

CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY1996/1997 Biennial Budget Estimates								
B. Component/Business Area/Date DON/R&D				C. Line. No & Description 71/Misc Telecomm Equipment New Mission Items< 100K			D. Activity Identification Naval Warfare Centers					
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
TELECOM EQUIP							VAR		65			

Narrative Justification: (New Mission)

An example of New Mission Telecommunication Equipment is a LAN Fiber Test Equipment.

CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY1996/1997 Biennial Budget Estimates								
B. Component/Business Area/Date DON/R&D				C. Line. No & Description 72/CORPORATE DATABASE UPGRADE			D. Activity Identification NSWC - DAHLGREN DIVISION, DAHLGREN					
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
OFF THE SHELF SOFTWARE							VAR		324	VAR		50

Narrative Justification: (Productivity)

A Center-wide database providing program management and project information is available to scientists, engineers, program and line managers. This database is constructed with an open system architecture which is compliant with FIPS 151 and supported by relational database management systems which are compliant with FIPS 127. This procurement consists of backup software in FY95, database software in FY95 and FY96, and data retrieval software in FY97. The software will be used in combination with workstations, a server, and data archiving hardware to be acquired for this effort.

The Corporate database is necessary to host a repository of information. This acquisition will improve productivity in the following ways: (a) eliminate the need for each technical program to maintain separate, duplicative automated systems for maintaining and tracking program, project and management information; (b) improve productivity of technical personnel by requiring less time for compiling, analyzing and reporting information, thus allowing more time for technical work; (c) reduce reliance on hardcopy reports and replace them with electronic query; and (d) reduce printing distribution costs by allowing distributed printing "on-location" for the reports that are necessary.

Without the Corporate Database, productivity gains relative to managing and reporting information in the technical programs cannot be achieved. Each program will continue to rely on a variety of manual data sources; separate automated systems to collect and manipulate data will continue to be build and maintained, thus increasing costs and reducing the time available for performing technical tasks.

000389

CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY1996/1997 Biennial Budget Estimates								
B. Component/Business Area/Date DON/R&D				C. Line. No & Description 73/FRONT-END SYSTEMS UPGRADE			D. Activity Identification NSWC - DAHLGREN DIVISION, DAHLGREN					
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
OFF THE SHELF SOFTWARE							VAR		124	VAR		212

Narrative Justification: (Productivity)

This investment expands the existing Front-end System capacity and capabilities developed to implement and support reengineered business processes, cut cost and improve overall process productivity. In addition to database software for the associated workstations, applications and forms software will be procured to decrease system development time and resources, increase developer productivity and boost overall system usability.

Current processes are labor intensive, slow, cumbersome, too costly to operate and add substantial cost to NSWCDD customer products. Three alternatives exist: (1) continue reliance on manual/semi-automated processes; (2) implement reengineered processes but limit number of users who can access and use the new processes; and (3) expand system capabilities to allow distribtuion of new processes across the organization. Alternative (1) locks in higher costs of doing business and/or slower processes as the number of resources decline. Alternative (2) allows cost savings to be achieved but suboptimizes the amounts by restricting the number of reengineered processes to be deployed and the number of people who can access them. Alternative (3) allows the cost reductions and productivity benefits to be mazimized across the organization.

This investment will reduce operational cost and achieve large scale productivity gains in a time of declining resources and sponsor funds. NSWCDD sponsors will be impacted through (1) higher manhour rates charged for technical work and (2) more direct labor charged for program management support activities.

CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)							A. Budget Submission FY1996/1997 Biennial Budget Estimates					
B. Component/Business Area/Date DON/R&D				C. Line. No & Description 74/Administrative Comm (Groupware)			D. Activity Identification NSWC - DAHLGREN DIVISION, PANAMA CITY					
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
OFF THE SHELF SOFTWARE							1	50	50	1	50	50

Narrative Justification: (New Mission)

Installation of multi-user software for administrative and managerial users such as shared calendars (e.g. for conference room reservations) with automatic mail notification to attendees, electronic form and document routing, and electronic signature/authorization.

As technology marches forward and electronic communication tools improve, it is important that this activity maintain pace. This software will enable administrative personnel and managers to do more via the local area network and greatly reduce both paper and "walk-thru" of documents. Information interchange will be expedited.

If expenditures of this type are not made, this activity will not take advantage of developing administrative communications technology and the increased productivity that they provide will lost.

CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY1996/1997 Biennial Budget Estimates								
B. Component/Business Area/Date DON/R&D				C. Line. No & Description 75/LAN Open Systems Database Software				D. Activity Identification NSWC - DAHLGREN DIVISION, PANAMA CITY				
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
OFF THE SHELF SOFTWARE										1	200	200

Narrative Justification: (New Mission)

Open systems (i.e., POSIX or UNIX) standards-compliant database management system providing high-performance database creation, upgrade, and search and retrieval resources for relational, binary large object, and object-oriented data bases.

This acquisition is based on projected changes in DOD, DON, and especially NAVSEA system architectures. NAVSEA's Information Resources Strategic Plan mandates transition to standards-based computing and most applications are moving toward distributed database concepts. By FY96, COASTSYSTA expects to support new data warehousing applications allowing local manipulation of corporate data supporting executive information and decision-making on local processors. This software will provide the database "backend" for the executive support system.

If this request and its associated hardware procurement are not funded, COASTSYSTA will be unable to conduct data warehousing and executive support on-site requiring remote processing at Dahlgren. This would generate requirements for wide-area networking in addition to the basic system requirements. These additional costs can be avoided by this procurement.

CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY1996/1997 Biennial Budget Estimates								
B. Component/Business Area/Date DON/R&D				C. Line. No & Description 76/NIMIP SOFTWARE			D. Activity Identification NSWC - ALL					
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
SOFTWARE DEVELOPMENT							1	1,754	1,754	1	726	726

Narrative Justification: (Productivity)

The current software computing capability is based upon proprietary database environments with associated high application maintenance costs. Several of the applications have been patched to the point of needing a new architecture design based on information needs. The software migration will be based upon downsizing hardware platforms, distributed data and applications. Investment benefits to be realized include: (1) ability to address constant change and unpredictable requirements based upon flexible technology platforms, (2) sharing of application software and data across platforms and therefore activity groups, (3) reusable application software reducing redundant application maintenance functions, (4) potential for common functional processes, and (5) user friendly access to data providing information in the format and time desired. This program is part of the NAVSEA Business Case which analyzed solutions for improving the IRM Business Function; it was approved by NISMC as the MNS for the NIMIP. NSWC has performed a program economic analysis as part of their business case. The impact of not making the investment is to: (1) remain in the proprietary database environment and (2) not be able to achieve budgeted savings.

000393

CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY1996/1997 Biennial Budget Estimates								
B. Component/Business Area/Date DON/R&D				C. Line. No & Description 77/2500 KVA SUBSTATION "F" BLDG			D. Activity Identification NSWC - CRANE DIVISION, LOUISVILLE					
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
MINOR CONSTRUCTION												300

Narrative Justification: (Replacement)

This project will install a 2,500 KVA, 480v outdoor electrical substation and distribution panels for "F" Building which houses a Machining Area, Computer Room Facility and the N/C Programers.

The current system is overtaxed and outdated. There is no capacity to expand and machining equipment must be ordered "special" to accomodate the existing 208v. This project will provide expansion capability and reduce maintenance and new equipment purchase cost by having the correct power source.

If not provided, downtime will continue because of an overtaxed system, equipment life will be shorter, and production costs will be higher due to equipment purchase cost and downtime.

CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY1996/1997 Biennial Budget Estimates								
B. Component/Business Area/Date DON/R&D				C. Line. No & Description 78/2500 KVA SUBSTATION IN A			D. Activity Identification NSWC - CRANE DIVISION, LOUISVILLE					
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
MINOR CONSTRUCTION									250			

Narrative Justification: (Replacement)

This project provides for installation of a 2,500 KVA, 480v outdoor electrical substation and distribution panel in the Gun Mount Production Shop area to support production in A-30-South.

The south end of "A" Building contains all the hydraulic testing equipment which supports the overhaul of various gun mounts. Equipment in the area is currently fed from an existing overtaxed 208v electrical system and a single 480v distribution panel located in A-30-South. The new system will provide adequate power to feed existing and new production equipment from the new electrical distribution panels already in the immediate area.

The existing system is currently near capacity and limits the potential for expansion in the "A" Building hydraulic area. The existing system is 208v which requires larger wiring components to provide the same amount of power. Special ordering of production equipment is also required to accomodate the outdated 208v system.

000395

CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY1996/1997 Biennial Budget Estimates								
B. Component/Business Area/Date DON/R&D				C. Line. No & Description 79/B152 RENOVATIONS			D. Activity Identification NSWC - DAHLGREN DIVISION, DAHLGREN					
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
MINOR CONSTRUCTION									200			

Narrative Justification: (Replacement)

B152 is a 21,000 square foot research, development, test and evaluation (RDT&E) facility built in 1944. This investment will renovate the facility to better utilize space.

Renovation of B152 will increase the energy efficiency of an old, costly building as well as modify configuration in order to maximize utilization. Users of smaller, more costly buildings will be relocated to B152, thus allowing the demolition of these buildings and decreasing utility and maintenance costs.

If this project is not completed, the building will not be utilized to its full capacity. In addition, NSWCDD will be unable to relocate users of the smaller, more costly buildings, resulting in higher energy and maintenance costs.

CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY1996/1997 Biennial Budget Estimates								
B. Component/Business Area/Date DON/R&D				C. Line. No & Description 80/CONSOLIDATED STORAGE				D. Activity Identification NSWC - DAHLGREN DIVISION, DAHLGREN				
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
MINOR CONSTRUCTION												300

Narrative Justification: (Replacement)

This investment will provide a large, consolidated, HVAC-controlled facility for the storage of various items of equipment.

This building will replace several small, obsolete facilities currently used for storage. These cost-intensive small facilities will then be demolished and reduce overall operating costs.

Without this investment, the small, cost-intensive facilities will continue to be used and utility savings will not be realized.

000397

CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY1996/1997 Biennial Budget Estimates								
B. Component/Business Area/Date DON/R&D				C. Line. No & Description 81/MISSILE DATA SYSTEM LABORATORY BUILDING			D. Activity Identification NSWC - PORT HUENEME DIVISION, PORT HUENEME					
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
MINOR CONSTRUCTION									30			300

Narrative Justification: (Replacement)

Tomahawk External Data Extraction System (TEDES)\Vertical Launching Systems (VLS)/HARPOON data system development laboratory is required to house the TEDES equipment, the VLS envoronmental/blast test equipments, and the Harpoon recording equipments.

The existing facility is a 1945 vintage "Butler Hut". This hut is scheduled for demolition in year 1994. The existing facility is not constructed to environmental standards required for its current utilitization as lab and office area. The facility housed sensistive computer equipment to include tape units, disk drives, and digital analog tapes. This Butler Hut is also used to curcuit board fabrication software development, data reduction and analysis, engineering development model testing and for the build-up and testing of the various data recording systems prior their being shipped to the fleet or test sites.

Funding for these three programs for a typical year is in the order of $850K. If this facility is not replaced the work will be redirected by NAVSEA/NAVAIR to another field activity. In summary, we lose the tasking for these instrucmentation systems.

000398

CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY1996/1997 Biennial Budget Estimates								
B. Component/Business Area/Date DON/R&D				C. Line. No & Description 82/PORTABLE ACQUISITION SYSTEM LAB				D. Activity Identification NSWC - PORT HUENEME DIVISION, PORT HUENEME				
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
MINOR CONSTRUCTION									30			300

Narrative Justification: (Replacement)

The Portable Data Acquisition and Collection System (PDACS) laboratory is required to house the PDACS equipment, the PDACS software development equipments, the system spares, and the office area for PDACS instrumentation team.

The existing facility is a 1945 vintage "butler hut". This hut is scheduled for demolition this year. The existing facility is not constructed to environmental standards required for its current/future utilization. The facility houses sensitive computer equipment to include tape units, disk drives, and digital analog tapes. This Butler Hut is also used for circuit board fabrication, software development, data reduction and analysis, engineering development model testing. This lab is also used for the equipment buildup and testing of the PDACS recording systems prior to its being shipped to the fleet.

Funding from the six projects (BFTT, LATR, MSR, SSDS, TCTS, AND ERESS) using the PDACS systems for a typical FY is in the order of $680K. If this facility is not replaced the work will be redirected by NAVSEA to another field activity. In summary, we lose the tasking for the PDACS data systems.

000399

CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY1996/1997 Biennial Budget Estimates								
B. Component/Business Area/Date DON/R&D				C. Line. No & Description 83/B1200 RENOVATIONS			D. Activity Identification NSWC - DAHLGREN DIVISION, DAHLGREN					
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
MINOR CONSTRUCTION												300

Narrative Justification: (Productivity)

Building 1200 is a 124,000 gross square foot Computation and Analysis building built in 1964. This project will alter existing spaces within the facility and upgrade existing HVAC and piping systems.

These alterations, in conjunction with significant maintenance and repair, will provide a more efficient workspace for a large number of people. By improving the existing large facilities, NSWCDD will be able to consolidate location of people and work; consequently, smaller, less efficient facilities will be demolished.

Without this investment, small, cost-intensive facilities must be used and efficiency savings will not be realized.

CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY1996/1997 Biennial Budget Estimates								
B. Component/Business Area/Date DON/R&D				C. Line. No & Description 84/EXTEND STEAM DISTRIBUTION				D. Activity Identification NSWC - DAHLGREN DIVISION, DAHLGREN				
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
MINOR CONSTRUCTION									215			

Narrative Justification: (Productivity)

The existing steam generation system at NSWCDD (Dahlgren) has the potential to provide additional steam to facilities. In order to fully utilize the system, the system will be extended to provide service to various buildings such as B183, B411, and B180.

Steam heat is more cost effective than the current heating methods in those buildings. Since NSWCDD has additional steam heating capability, it will be relatively inexpensive to extend the steam distribution system to additional buildings and to thus decrease overall heating costs.

Without this investment, less cost-effective heating methods will continue to be used. Consequently, utility efficiency savings will not be realized.

000401

CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY1996/1997 Biennial Budget Estimates								
B. Component/Business Area/Date DON/R&D				C. Line. No & Description 85/RENOVATE B218			D. Activity Identification NSWC - DAHLGREN DIVISION, DAHLGREN					
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
MINOR CONSTRUCTION									300			

Narrative Justification: (Productivity)

Building 218 is a 44,000 gross square foot Research Development Test & Evaluation (RDT&E) facility built in 1942. This project will alter existing spaces within the facility and upgrade existing HVAC and piping systems.

These alterations, in conjunction with significant maintenance and repair, will provide a more efficient workspace for a large number of people. By improving the existing large facilities, NSWCDD will be able to consolidate location of people and work; consequently, smaller, less efficient facilities will be demolished.

Without this investment, small, cost-intensive facilities must still be used and efficiency savings will not be realized.

CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)							A. Budget Submission FY1996/1997 Biennial Budget Estimates					
B. Component/Business Area/Date DON/R&D				C. Line. No & Description 86/TTSP FACILITY			D. Activity Identification NSWC - DAHLGREN DIVISION, DAHLGREN					
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
MINOR CONSTRUCTION									290			

Narrative Justification: (Productivity)

The Target Tracking and Signal Processing (TTSP) Facility is a generic building housing equipment used to develop and test techniques for multi-sensor data fusion, single and/or multi-sensor state estimation, signal processing associated with single and/or multi-sensor, optimal resource scheduling, and multiple simultaneous beamforming phased arrays.

This additional space is required to house planned CPP equipment (both ADP and Non-ADP). This building will also provide adequate space to conduct briefings and to host working level meetings related to laboratory operations or technology development in proximity to the development activities.

Without this investment, there will be inadequate space to efficiently support TTSP efforts.

000403

CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY1996/1997 Biennial Budget Estimates								
B. Component/Business Area/Date DON/R&D				C. Line. No & Description 87/UTILITY METERING			D. Activity Identification NSWC - DAHLGREN DIVISION, DAHLGREN					
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
MINOR CONSTRUCTION												200

Narrative Justification: (Productivity)

This project will install electric meters on various buildings at NSWCDD.

Utility meters are required in order to accurately charge users for utility charges. This is essential for the implementation of Base Operating Support (BOS).

If this project is not completed, NSWCDD will continue to estimate utility costs for the facilities and be unable to implement the BOS requirement of obtaining reimbursement for actual utility usage.

CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY1996/1997 Biennial Budget Estimates								
B. Component/Business Area/Date DON/R&D				C. Line. No & Description 88/CONSTRUCT ADDITION TO B.521				D. Activity Identification NSWC - INDIAN HEAD DIVISION, INDIAN HEAD				
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
MINOR CONSTRUCTION									250			

Narrative Justification: (New Mission)

Build 2300 sq ft addition above main floor. The addition must blend in with the existing facility in terms of appearance and practicality.

Expanding the facility will reduce cost by relocating personnel from leased spaces to facilities on the Activity.

The Activity will continue to pay for leased spaces which could be avoided. Centralization of personnel will create efficiencies.

00805

CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY1996/1997 Biennial Budget Estimates								
B. Component/Business Area/Date DON/R&D				C. Line. No & Description 89/FIAL MODIFICATIONS			D. Activity Identification NSWC - CARDEROCK DIVISION, BREMERTON					
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
MINOR CONSTRUCTION									285			

Narrative Justification: (New Mission)

This project will convert laboratory space to offices; erect modular structures to house equipment; upgrade electrical, security, and telephone systems; resize heating, ventilation, and air conditioning (HVAC) systems; and enlarge the capacities of the potable water and septic systems in order to support increased occupancy at the Fox Island Acoustic Laboratory (FIAL) at the Bremerton Detachment, Carderock Division, Naval Surface Warfare Center (CARDEROCKDIV, NAVSURFWARCEN).

CARDEROCKDIV has been repeatedly asked by the Puget Sound Naval Shipyard to vacate tenant spaces. This will require the relocation of the Bremerton Detachment. In order to better utilize Division assets and reduce the need for commercial lease space, some personnel will be relocated to the Acoustic Research Detachment (ARD), Bayview, Idaho and the remainder to FIAL.

Failure to fund this project will result in the inability to meet customer requirements.

CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY1996/1997 Biennial Budget Estimates								
B. Component/Business Area/Date DON/R&D				C. Line. No & Description 90/FUEL CELL R&D LABORATORY			D. Activity Identification NSWC - CARDEROCK DIVISION, ANNAPOLIS					
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
MINOR CONSTRUCTION									226			

Narrative Justification: (New Mission)

This project will erect a 40 foot by 40 foot metal frame building with high bay doors, explosion proof electrical system, fume hoods in the assembly and analysis area, and adjacent concrete pads, to support Fuel Cell Research and Development Programs at the Annapolis Detachment, Carderock Division, Naval Surface Warfare Center (CARDEROCKDIV, NAVSURFWARCEN).

Because fuel cell power systems offer enhanced ship survivability, reduced fuel consumption, and near zero pollution, the Navy has increased research and development (R&D) programs for these systems. The Annapolis Detachment is the only Navy laboratory currently involved in this work. The growth in fuel cell programs has made existing laboratory space inadequate. The new laboratory building will provide the space needed to support the demonstration of shipboard fuel cell systems at sea and the development of advanced and high power density fuel cells.

Failure to fund this project will result in the inability to meet customer requirements.

CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY1996/1997 Biennial Budget Estimates								
B. Component/Business Area/Date DON/R&D				C. Line. No & Description 91/RIMS OPERATIONS BUILDING			D. Activity Identification NSWC - CARDEROCK DIVISION, CARDEROCK					
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
MINOR CONSTRUCTION									300			

Narrative Justification: (New Mission)

This project will construct a module adjacent to Building 18 at the Carderock Division, Naval Surface Warfare Center (CARDEROCKDIV, NAVSURFWARCEN) to provide a protected, environmentally controlled work and storage area to support the Radar Image Modelling System (RIMS) and the Deployable Signature Measurement System (DSMS).

The RIMS and DSMS , multi-million dollar investments by the Navy in state-of-the-art electronics and instrumentation, are the heart of Navy radar signature reduction efforts. At present, these systems are housed in trailers which expose them to the deteriorating effects of extremes of temperature and humidity. The RIMS Operations Building will provide a dedicated temperature and humidity controlled environment in which these systems can be housed, maintained and prepared for test operations.

Failure to fund this project will result in the inability to meet customer requirements.

800408

CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY1996/1997 Biennial Budget Estimates								
B. Component/Business Area/Date DON/R&D				C. Line. No & Description 92/ABRASIVE BLAST FACILITY				D. Activity Identification NSWC - CARDEROCK DIVISION, CARDEROCK				
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
MINOR CONSTRUCTION									290			

Narrative Justification: (Environ/Safety)

This project will construct a new Abrasive Blast Facility to replace the existing facility which is old and environmentally unsafe.

The current Abrasive Blast Facility at the Carderock Division, Naval Surface Warfare Center (CARDEROCKDIV, NAVSURFWARCEN) is located adjacent to a wetlands area and presents the danger of contamination. In addition to the environmental concerns, the current facility is inadequate in size and worn out.

Failure to fund this project will result in the perpetuation of an existing and potentially hazardous environmental/safety hazard.

000409

CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY1996/1997 Biennial Budget Estimates								
B. Component/Business Area/Date DON/R&D				C. Line. No & Description 93/AIR EMISSIONS, THREE BOILERS - PHILADELPHIA			D. Activity Identification NSWC - CARDEROCK DIVISION, PHILADELPHIA					
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
MINOR CONSTRUCTION												270

Narrative Justification: (Environ/Safety)

This project will install emissions control systems on the existing boiler stacks at the Philadelphia Detachment, Carderock Division, Naval Surface Warfare Center (CARDEROCKDIV, NAVSURFWARCEN).

The Clean Air Act (Federal Regulation 55620 paragraph 57) regulates ozone emissions. Philadelphia is in a non-attainment area for this pollutant and will be subject to limits on emissions. To attain compliance, a combination of burner control technology and/or stack precipitators or scrubbers will be required.

Failure to fund this project will result in the perpetuation of an existing and potentially dangerous environmental/safety hazard.

000410

CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY1996/1997 Biennial Budget Estimates								
B. Component/Business Area/Date DON/R&D				C. Line. No & Description 94/CONSTRUCT WETLANDS AT SEWAGE TREATMENT PLANT			D. Activity Identification NSWC - INDIAN HEAD DIVISION, INDIAN HEAD					
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
MINOR CONSTRUCTION												300

Narrative Justification: (Environ/Safety)

Replace wetlands destroyed by military construction projects.

This project is necessary to fulfill an agreement we have with the State of Maryland to construct wetlands which were destroyed during a military construction project at another site of the Activity.

Without approval of this project, the Activity will not comply with an agreement made with the State of Maryland.

000411

CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY1996/1997 Biennial Budget Estimates								
B. Component/Business Area/Date DON/R&D				C. Line. No & Description 95/FIRE PROTECTION			D. Activity Identification NSWC - CARDEROCK DIVISION, MEMPHIS					
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
MINOR CONSTRUCTION									250			

Narrative Justification: (Environ/Safety)

This project will install emergency lighting in Building 1, and a fire sprinkler system in Building 4 at the Memphis Detachment, Carderock Division, Naval Surface Warfare Center (CARDEROCKDIV, NAVSURFWARCEN).

The National Fire Code for Safety to Life from Fire in Buildings and Structures (NFPA 101) mandates emergency lighting in industrial and office buildings and sprinkler protection in office buildings. This project will install these systems where they do not exist at the Memphis Detachment.

Failure to fund this project will result in the perpetuation of an existing and potentially dangerous environmental/safety hazard.

CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY1996/1997 Biennial Budget Estimates								
B. Component/Business Area/Date DON/R&D				C. Line. No & Description 96/INTEGRATED SITE ALARM SYSTEM				D. Activity Identification NSWC - CARDEROCK DIVISION, MEMPHIS				
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
MINOR CONSTRUCTION									277			

Narrative Justification: (Environ/Safety)

This project will install an integrated alarm system which will provide fire, security and operational alarms as well as perform energy monitoring at the Memphis Detachment, Carderock Division, Naval Surface Warfare Center (CARDEROCKDIV, NAVSURFWARCEN).

The National Fire Code (NFPA 101) mandates fire alarm systems for industrial and office buildings. Presently, the Memphis Detachment of CARDEROCKDIV does not have a site fire alarm system. Additionally, the Large Cavitation Channel (LCC) located at the Memphis Detachment requires a security alarm system to maximize security and accomodate classified and sensitive projects, and operational alarms to ensure safe and efficient operation. The large size, periodic high energy requirement, and low staffing level of the Memphis Detachment makes the installation of an energy monitoring system a necessity.

Failure to fund this project will result in the perpetuation of an existing and potentially dangerous environmental/safety hazard.

000413

CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY1996/1997 Biennial Budget Estimates								
B. Component/Business Area/Date DON/R&D				C. Line. No & Description 97/LSMB PIER			D. Activity Identification NSWC - CARDEROCK DIVISION, BAYVIEW					
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
MINOR CONSTRUCTION												270

Narrative Justification: (Environ/Safety)

This project will construct a 12-foot wide, 100-foot long, driven piling supported, material/personnel access pier from the lake shore to the Large Model Support Barge (LSMB) at the Acoustic Research Center (ARD), Carderock Division, Naval Surface Warfare Center (CARDEROCKDIV, NAVSURFWARCEN).

The LSMB and Model Support Platform (MSP) are moored approximately 100 feet off shore in Lake Pend Orielle at ARD, Bayview, Idaho. These facilities support a growing number of acoustic silencing research programs involving large scale submarine models. At present, access to these facilities is by an unsupported personnel access gangway. This gangway is too narrow and unsteady for the transfer of large, heavy, or bulky material from the shore to the facilities. Such material transfers must now be accomplished using small watercraft with the attendant risk of loss of material and/or personnel injury. The new pier will provide safe and ready access from the shore to the facilities for both personnel and material.

Failure to fund this project will result in the perpetuation of an existing and potentially dangerous environmental/safety hazard.

CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY1996/1997 Biennial Budget Estimates								
B. Component/Business Area/Date DON/R&D				C. Line. No & Description 98/OFFICES FOR ENGR MISSILE BRANCH				D. Activity Identification NSWC - CRANE DIVISION, CRANE				
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
MINOR CONSTRUCTION									260			

Narrative Justification: (Environ/Safety)

This project constructs a 5,000 sq.ft., stand-alone building near Building 364. The building will have two small offices and the remainder will be open office area. Restrooms and a coffee mess will also be provided.

Building 3115, which is the current location of the engineering support personnel, is encumbered by explosive arcs from the red-phosphorus building, Building 198, and a ready magazine.

Should an accident occur with the documented safety deficiency, the Navy would incur large laibility.

000215

CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY1996/1997 Biennial Budget Estimates								
B. Component/Business Area/Date DON/R&D				C. Line. No & Description 99/RENO MOD & 8023 PROD ENGR			D. Activity Identification NSWC - CRANE DIVISION, CRANE					
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
MINOR CONSTRUCTION									200			

Narrative Justification: (Environ/Safety)

This project renovates two existing modular rooms and the Code 8023 Production Engineering room.

CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY1996/1997 Biennial Budget Estimates								
B. Component/Business Area/Date DON/R&D				C. Line. No & Description 100/REPLACE BUILDING 2903				D. Activity Identification NSWC - CRANE DIVISION, CRANE				
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
MINOR CONSTRUCTION												275

Narrative Justification: (Environ/Safety)

This project provides for a lunch and locker area for the truck drivers who haul for the Crane Army Ammunition Activity.

The present lunch and locker building is in an area encumbered by explosive arcs. Due to a change in the requirements of OP-5, the existing building is now encumbered and has been documented as a safety violation.

Should an accident occur with the documented safety deficiency, the Navy could incur large liability.

000477

CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY1996/1997 Biennial Budget Estimates								
B. Component/Business Area/Date DON/R&D				C. Line. No & Description 101/ROAD CONSTRUCTION (NEAR B194)				D. Activity Identification NSWC - DAHLGREN DIVISION, DAHLGREN				
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
MINOR CONSTRUCTION												250

Narrative Justification: (Environ/Safety)

This project will improve vehicluar and pedestrian circulation op Marple Road. The site currently has on-road parking and is a major thoroughfare for the Dahlgren site.

This area is a safety concern due to the volume of traffic as well as insufficient space for needed parking. The road is also a pedestrian crosswalk between two major buildings. Redesign of this area will reduce safety hazards.

Without this investment, pedestrian and vehicular safety hazards will continue to be a concern.

CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY1996/1997 Biennial Budget Estimates								
B. Component/Business Area/Date DON/R&D				C. Line. No & Description 102/STORMWATER SYSTEM				D. Activity Identification NSWC - DAHLGREN DIVISION, DAHLGREN				
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
MINOR CONSTRUCTION									100			100

Narrative Justification: (Environ/Safety)

The investment will install additional stormwater distribution lines in areas that do not currently have them.

This investment is necessary in order to reduce/control the amount of direct stormwater runoff from NSWCDD.

If this project is not completed, NSWCDD will be unable to control stormwater runoff.

00419

CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY1996/1997 Biennial Budget Estimates								
B. Component/Business Area/Date DON/R&D				C. Line. No & Description 103/UPGRADE BUILDING 731 X-RAY FACILITY			D. Activity Identification NSWC - INDIAN HEAD DIVISION, INDIAN HEAD					
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
MINOR CONSTRUCTION												300

Narrative Justification: (Environ/Safety)

Bldg.731 Upgrade

The lead shields will improve safety allowing the X-ray technicians to work in one of the three bays simultaneously while other technicians are setting up the next motor. This will increase efficiency and possibly reduce the overtime needed to keep up with the amount of X-ray being performed.

Without the upgrade, the Activity will not make efficient use of our x-ray facilities.

0003270

CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY1996/1997 Biennial Budget Estimates								
B. Component/Business Area/Date DON/R&D				C. Line. No & Description 104/WEAPONS O/H AREA B-2521				D. Activity Identification NSWC - CRANE DIVISION, CRANE				
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
MINOR CONSTRUCTION												300

Narrative Justification: (Environ/Safety)

This project provides a well-lighted, humidity-controlled work area for the small arms overhaul area.

Currently lighting is at 40 FC and this causes eye strain on the employees working on small parts. This project will light the area to approx. 100 FC. Additionally, the temperature in the area during the summer months averages 95 degrees and the humidity level averages 60%. These conditions have an adverse effect on the raw metal parts being corrosion protected.

Less than optimum work performance and rework due to corrosion of raw metal parts will continue, as well as eye strain for the employees.

0012

CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY1996/1997 Biennial Budget Estimates								
B. Component/Business Area/Date DON/R&D				C. Line. No & Description 105/Misc Minor Construction Rep Items			D. Activity Identification Naval Warfare Centers					
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
MINOR CONSTRUCTION							VAR		345	VAR		275

Narrative Justification: (Replacement)

The projects identified fund the minor construction portion of projects which are a combination of Maintenance and Repair and miscellaneous Minor Construction. Examples of these projects are Explosive Test Research Facility, Upgrade Central Laundry, Clean-up Project, Lab Upgrade, and Construct Temperature & Humidity Building

CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY1996/1997 Biennial Budget Estimates								
B. Component/Business Area/Date DON/R&D				C. Line. No & Description 106/Misc Minor Construction Prod Items					D. Activity Identification Naval Warfare Centers			
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
MINOR CONSTRUCTION							VAR		370	VAR		360

Narrative Justification: (Productivity)

The projects identified provide increased productivity infrastructure support to the Naval Surface Warfare Centers. Examples of these projects include: Air Test Facility Piping, Feed Back Upgrade, V-Building Cantilveve Racks, and Extend Steam Distribution.

CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY1996/1997 Biennial Budget Estimates								
B. Component/Business Area/Date DON/R&D				C. Line. No & Description 107/Misc Minor Construction New Mission Items			D. Activity Identification Naval Warfare Centers					
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
MINOR CONSTRUCTION							VAR		60			

Narrative Justification: (New Mission)

The projects identified provide increased infrastructure support to the Naval Surface Warfare Centers. Examples of these projects include: Fuel Cell R&D Laboratory, CD ROM Publishing Capacity, Sonar Motion Test Facility, Titanium Spray Forming, and Model Display & Prep Building.

0004424

CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY1996/1997 Biennial Budget Estimates								
B. Component/Business Area/Date DON/R&D				C. Line. No & Description 108/Misc Minor Construction Env/Safety Items			D. Activity Identification Naval Warfare Centers					
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
MINOR CONSTRUCTION							VAR		910	VAR		1,005

Narrative Justification: (Environ/Safety)

These projects are required to meet regulatory requirements which are primarily environmental or safety related. Examples of these projects include: Explosive Sampling Building, Waste Oil Storage Facility, Gas Cylinder Storage & Ramp Level, Construct Refrigerant Recycling Facility, and Soil Bio-Engineering Phase II.

CAPITAL PURCHASES JUSTIFICATION
(Dollars in Thousands)

A. FY 1996/1997 BIENNIAL BUDGET

B. Department of the Navy/Research & Development

C. P-369 MILCON COLLATERAL EQUIP.(MESA) REPLACEMENT
LINE # WC3EL0005R

D. NAWC-WD

	FY 1993			FY 1994			FY 1995			FY 1996			FY 1997		
Element of Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost
Hardware										1	75	75	1	75	75
Software										1	225	225	1	225	225
Installation															
TOTAL												300			300

Narrative Justification:
OPERATIONAL DATE: January 1996

DESCRIPTION: These procurements will provide the collateral equipment required to make the Missile Engagement Simulation Arena (MESA) (MILCON P-369) complete and usable. Construction of the facility has begun and limited operational capability is expected by May 1995. This equipment will measure the performance of advanced fuse and missile technologies while still in the design and prototype phases and assess the effectiveness of improvements in current weapon systems to counter the advanced threats. It will also provide an effective capability to assess the performance of foreign military systems against U.S. reduced observable aircraft and missiles.

Cost reductions associated with the acquisition of the collateral equipment are significant but not the most important reasons for justifying its acquisition. Appropriate outfitting of the MESA is essential to provide the critical and unique fuse testing capabilities that are required. Alternate method is estimated at 12 contract manyears. However, GFE of the technical facility would not be cost effective.

MESA will support the development and improvement of the anti-air weapons critical to the defense of the Navy and other military services and their ability to project force. Without MESA, the United States would be severely handicapped in its ability to develop missile fuzes needed to counter advanced threats, such as the reduced observable airframe. Without MESA, the Naval Air Warfare Center, Weapons Division, the Navy's primary Center for the development of anti-air weapons, would be limited in its capabilities to develop the weapons needed to counter these threats.

ECONOMIC ANALYSIS IMPACT: Cost reductions associated with the acquisition of the collateral equipment are significant but not the most important reasons for justifying its acquisition. Appropriate outfitting of the MESA is essential to provide the critical and unique fuse testing capabilities that are required.

COST BENEFIT ANALYSIS HAS BEEN PERFORMED WITH:

Payback Period = 5.8 years
Return on Investment (ROI) = 13%
Average Annual Savings = $1,109K

924000

CAPITAL PURCHASES JUSTIFICATION
(Dollars in Thousands)

A. FY 1996/1997 BIENNIAL BUDGET

B. Department of the Navy/Research & Development

C. WEPTAC PHASE II REPLACEMENT
LINE # WC3EL0006R

D. NAWC-WD

Element of Cost	FY 1993 Qty	FY 1993 Unit Cost	FY 1993 Total Cost	FY 1994 Qty	FY 1994 Unit Cost	FY 1994 Total Cost	FY 1995 Qty	FY 1995 Unit Cost	FY 1995 Total Cost	FY 1996 Qty	FY 1996 Unit Cost	FY 1996 Total Cost	FY 1997 Qty	FY 1997 Unit Cost	FY 1997 Total Cost
Hardware										1	120	120	1	200	200
Software										1	680	680	1	760	760
Installation															
Other															
TOTAL											800	800		960	960

Narrative Justification:
OPERATIONAL DATE: September 1995

DESCRIPTION: The Weapons and Tactics Analysis Center (WEPTAC) is an interactive wargaming facility developed by the Naval Air Warfare Center Weapons Division (NAWCWD) to aid in the evaluation and development of fleet tactics and conceptual weapon systems in the areas of anti-air, anti-surface, and strike warfare. The current system was developed using hardware architecture and software technology of the late 1970's. Although the current system plays a key role in Navy planning and system development, there are times that the system cannot address some project requirements. Some examples of the limitations are simulation run-time, model detail, and ease of use (user friendliness). Since the software is tightly integrated to the production hardware and the current hardware cannot be modified to address state-of-the-art software, the system must upgrade its hardware to maintain real-time capability.

The proposed method will provide the ADA software development, and state-of-the-art hardware, to identify, design and implement the real-time system requirements for a modern simulation capability. The new system will continue to provide an increase in the productivity of WEPTAC personnel and the quality of the analytical capabilities available to center management and off-center sponsors. With the current system, the run-time of any given project is one-fourth real time. With the proposed system upgrade the run-time will be significantly improved. In addition, the time spent performing data reduction and the time spent performing analyses should be reduced by half. This time savings allows for more extensive analyses on projects. The result will be an increase in the quantity and quality of projects.

If the WEPTEC Phase II project is not funded, the following limitations will continue to impact the quality of WEPTAC analysis: the existing system will not meet the requirements to run in real-time, it will not be flexible enough to model current and conceptual weapons and platforms because of obsolete hardware, and it will not have sufficient compute power to allow for any further model/software upgrade or development. Therefore, with the status quo system, the assumption must be made that critical analysis issues would be performed with intensive and extensive manual labor.

COST BENEFIT ANALYSIS HAS BEEN PERFORMED WITH:

Payback Period = 1.3 years
Return on Investment (ROI) = 52%
Internal Rate of Return = 68%
Average Annual Savings = $2,921K

000427

CAPITAL PURCHASES JUSTIFICATION
(Dollars in Thousands)

A. FY 1996/1997 BIENNIAL BUDGET

B. Department of the Navy/Research & Development

C. MISSION PLANNING EQUIPMENT REPLACEMENT
LINE # WC4EL0007R

D. NAWC-WD

Element of Cost	FY 1993 Qty	FY 1993 Unit Cost	FY 1993 Total Cost	FY 1994 Qty	FY 1994 Unit Cost	FY 1994 Total Cost	FY 1995 Qty	FY 1995 Unit Cost	FY 1995 Total Cost	FY 1996 Qty	FY 1996 Unit Cost	FY 1996 Total Cost	FY 1997 Qty	FY 1997 Unit Cost	FY 1997 Total Cost
Hardware										1	495	495	1	745	745
Software										1	495	495	1	745	745
Installation										1	10	10	1	10	10
Other															
TOTAL											1,000	1,000		1,500	1,500

Narrative Justification:
OPERATIONAL DATE: December 1995

DESCRIPTION: Mission Planning is important to the development, design, and utilization of modern weapons systems, and is a significant driver of the design of future weapons systems. Major programs are currently underway to control, improve, simplify and coordinate mission planning. Emerging new technologies and weapons systems will have to be integrated into these systems. NAWCWPNS programs such as the Joint Stand Off Weapon (JSOW), Standoff Land Attack Missile (SLAM), Highspeed Antiradiation Missile (HARM), the Harpoon Weapon System, the Joint Direct Attack Munition (JDAM), the emerging Tomahawk Baseline IV, and others, must develop systems unique mission planning capabilities to integrate into this complex mission planning environment. Mission planning encompasses a broad spectrum of activities. For a particular weapon and delivery platform, mission planning involves accessing imagery of a specific target, preparing a reference scene of the target from this imagery, locating the target precisely, determining weaponeering details associated with the target structure and kill mechanism, developing the route of access of the weapon and delivery platform to access the target area which includes consideration of various threats to the success of the mission, and calculating the number of weapons that will be required to neutralize the target and insure survival of the delivery platform. In addition, the individually planned missions must be coordinated with the overall operational plan being prosecuted.

These funds are to upgrade the mission planning resources required to support the broad spectrum of mission planning development activities. The mission planning laboratory is able to mimic all the mission planning activities performed aboard an aircraft carrier in the Command Intelligence Center. To accommodate these capabilities, the funds are being used to upgrade the Tactical Aircraft Mission Planning System (TAMPS) with automated weaponeering and knowledge engineering tools as well as facility computer hardware. The laboratory makes available to the technical development team of NAWCWPNS the resources required to perform mission planning development tasks essential to NAWCWPNS programs. Failure to upgrade the Mission Planning Development and Support Laboratory will seriously compromise our efforts to maintain the significant role of NAWCWPNS in the mission planning arena.

COST BENEFIT ANALYSIS HAS BEEN PERFORMED WITH:

Payback Period = 1.6 years
Return on Investment (ROI) = 44%
Internal Rate of Return = 56%
Average Annual Savings = $1,751K

000428

CAPITAL PURCHASES JUSTIFICATION
(Dollars in Thousands)

A. FY 1996/1997 BIENNIAL BUDGET

B. Department of the Navy/Research & Development

C. CESE/MHE REPLACEMENT
LINE # WC4ES60000R

D. NAWC-WD

Element of Cost	FY 1993 Qty	FY 1993 Unit Cost	FY 1993 Total Cost	FY 1994 Qty	FY 1994 Unit Cost	FY 1994 Total Cost	FY 1995 Qty	FY 1995 Unit Cost	FY 1995 Total Cost	FY 1996 Qty	FY 1996 Unit Cost	FY 1996 Total Cost	FY 1997 Qty	FY 1997 Unit Cost	FY 1997 Total Cost
Hardware															
Software										1	893	893	1	933	933
Installation															
Other															
TOTAL											893	893		933	933

Narrative Justification:
OPERATIONAL DATE: September 1998

DESCRIPTION: The total number of vehicles and equipment at NAWCWD is 1,222. The average age of the fleet is eleven years (1983). Considering the vast area (remote sites), personnel are required to travel up to 100 miles a day on unimproved roads, some of which are only checked once a day by the Range Patrols. These conditions make reliable transportation imperative for all personnel at NAWCWD. The vehicles acquired in FY96 and FY97 will replace those that are now over age, have high mileage, have high maintenance costs and parts which are now difficult to acquire. The FY96 purchase includes about 20 trucks of various tonnage, 4 forklifts, 2 tractor crawler and an industrial pumper. For FY97 the vehicles include about 21 trucks of various tonnage, 4 tractors, and 5 forklifts.

As newer vehicles are acquired, some of them are placed in C-Pool. This helps keep the C-Pool Fleet reliable to support off-station travel. Since the site consolidation, there has been an increase in travel between NAWCWD China Lake and NAWCWD Point Mugu. Newer vehicles in C-Pool makes travel between these two locations safer. Since 1980 there have been substantial vehicle improvements in smog controls and fuel economy. New vehicles would help reduce emissions at NAWCWD and provide a cost avoidance in fuel costs. A part of the new replacement vehicles will use alternative fuels to meet currently enforced environmental laws.

Without a consistent vehicle replacement program, there will be no adequate, safe, reliable transportation at NAWCWD. As vehicles become older, parts are harder, if not impossible, to acquire. As major components fail, the vehicles will be excessed because no replacement parts are available. NAWCWD will not be able to comply in the future with the more stringent vehicle emission laws. This could lead to NAWCWD paying fines for not meeting requirements.

COST BENEFIT ANALYSIS HAS BEEN PERFORMED WITH:

Payback Period = 4.4
Return on Investment (ROI) = 22%
Average Annual Savings = $402K

000429

CAPITAL PURCHASES JUSTIFICATION
(Dollars in Thousands)

A. FY 1996/1997 BIENNIAL BUDGET

B. Department of the Navy/Research & Development

C. PWB Direct Laser Imaging System REPLACEMENT
LINE # A16EL5701R

D. NAWC-AD

	FY 1993			FY 1994			FY 1995			FY 1996			FY 1997		
Element of Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost
PWB Direct Laser Imaging System										1	765	765			
TOTAL												765			

Narrative Justification:
OPERATIONAL DATE: January 1996

The Direct Laser Imaging System (DLIS) will reduce the fabrication time for printed wiring board (PWB) manufacturing of prototype and production boards by eliminating phototools, artwork, and film preparation. The proposed DLIS will image the panel directly from the CAD/CAM data files, thus allowing design changes to be implemented without the material cost or time loss required to produce new phototools.

The current method uses the CAD/CAM data to plot a silver halide master film. The silver halide is inspected and used to produce working diazo films. The diazo films are inspected and hand registered to the PWB panels. The panels are then exposed and developed. During this process the films are susceptible to handling damage which, if unnoticed, could result in reduced process yields.

Upon completion, the PWB's are hand stamped with serial numbers. This process requires individual characters to be hand stamped one at a time. The ink must then be allowed to dry before being cured by baking in an oven. The stamping operations and the filmprep operations are very labor intensive. The two operations require 2-4 days of cycle time and an estimated 15% of the labor required to produce a PWB. The current process is capable of producing lines only as thin as 5 mils. When lines are being produced at this small width, a reduced yield will be noticed.

Currently an average of 900 hours of work are input to the PWB shop per week. The proposed DLIS would eliminate the film plotting, filmprep, and hand stamping operations. The DLIS would also reduce scrap by improving registration, eliminating photo tool defects, reducing cycle time, and improving line width capability. By eliminating the stamping and the filmprep operations, a 15% reduction in direct labor hours will be obtained.

COST BENEFIT ANALYSIS HAS BEEN PERFORMED WITH:
Payback Period = 2.6 years
Return on Investment (ROI) = 28%
Average Annual Savings = $215K

ECONOMIC ANALYSIS IMPACT:
If the proposed DLIS cannot be procured, NAWCAD would continue to manufacture PWB's by current methods. Customer requirements for PWB's using lines finer than 5 mil could not be met. PWB manufacturing cycle time would not be decreased by 1-3 days and savings would not be realized.

000430

CAPITAL PURCHASES JUSTIFICATION
(Dollars in Thousands)

A. FY 1996/1997 BIENNIAL BUDGET

B. Department of the Navy/Research & Development

C. CORPORATE NETWORK EMERGENCY POWER SYSTEM REPLACEMENT
LINE # WC4ES00OR

D. NAWC-WD

	FY 1993			FY 1994			FY 1995			FY 1996			FY 1997		
Element of Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost
Hardware										1	700	700	1	350	350
Software															
Installation															
Other															
TOTAL											700	700		350	350

Narrative Justification:
OPERATIONAL DATE: June 1998

DESCRIPTION: Currently there is no emergency power backup system for key areas of the corporate network. If utility power is lost in a small localized area, such as the FOTS Hub, the corporate network will fail even though utility power at all other locations is uninterrupted. This results in a loss of user productivity until the network is restored. Once utility power is restored and if the network equipment is not damaged, most units require manual rebooting. Depending on the scale of the outage, significant manpower can be required to recover the network. If equipment is damaged, then trouble-shooting and costly equipment repair or replacement is required. The importance of daily reliable operations for both on- and off-center links is increasing as demonstrated by the increased usage.

This will be a multi-year phased-in approach. The components include charger eliminators to convert utility power for running DC powered communications equipment and charging batteries, inverters for providing battery power to AC powered communications equipment and support systems including network management computers, batteries for short-term uninterruptible power backup, a step-down transformer, increased utility power to the FOTS Hub, and air conditioning units.

With increased network reliability, user productivity will be realized. Eliminating power spikes due to temporary unstable utility power eliminates equipment damage and costly replacement, and technician trouble-shooting time is reduced for diagnostics of transient network problems. Without this network emergency power backup system, the corporate network will continue to become unreliable at all critical locations when subjected to isolated utility power outages. Communications will be lost at locations suffering power outages and network user productivity will cease until utility power can be reestablished and the corporate network can be rebooted. Without this system, there is no guarantee that service for critical communications on- or off-center can occur (e.g. transmitting financial information to Pt. Mugu for processing, or earthquake prediction data). The high level of troubleshooting time and costly equipment repair and replacement will continue without this system.

COST BENEFIT ANALYSIS HAS BEEN PERFORMED WITH:

Payback Period = 2.9
Return on Investment (ROI) = 26%
Internal Rate of Return = 28%
Average Annual Savings = $270.4K

000431

CAPITAL PURCHASES JUSTIFICATION
(Dollars in Thousands)

A. FY 1996/1997 BIENNIAL BUDGET

B. Department of the Navy/Research & Development

C. Vibration/Shock Shaker System REPLACEMENT
LINE # AI6EL7402R

D. NAWC-AD

Element of Cost	FY 1993			FY 1994			FY 1995			FY 1996			FY 1997		
	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost
Vibration/Shock Shaker System										1	600	600			
TOTAL												600			

Narrative Justification:
OPERATIONAL DATE: May 1996

This equipment will replace a thirty-seven year old mechanical shaker system. A new system is needed to maintain current capabilities, expand shock capabilities, and increase energy efficiency. This project will affect all programs requiring vibration testing or environmental stress screening at NAWC-AD and many of the team's outside customers. Programs include TRSS, AWW-13, SMQ-11, V/STOL OLS, Walleye, FEWSG, GPS, and Bomb Racks.

The current machine can only perform sine vibration and not random. It cannot perform any shock testing and it requires constant operator monitoring. There is no system at NAWCAD that is capable of shock testing bomb racks. All bomb rack testing is currently contracted.

The new vibration/shock shaker system will provide more accurate tests on large systems and will improve production work turnaround times. The new system will also eliminate the need for contracting out bomb rack testing. It will relieve heavy workload on existing slip table systems and eliminate the need for overtime. The new system will be more accurate and easier to set up since it will be digitally controlled instead of mechanically controlled.

COST BENEFIT ANALYSIS HAS BEEN PERFORMED WITH:

Payback Period = 0.7 years
Return on Investment (ROI) = 91%
Average Annual Savings = $544K

ECONOMIC ANALYSIS IMPACT:

If this vibration/shock shaker system is not purchased NAWCAD will not have the capability to do bomb rack testing. Current vibration/shock systems will continue to be used heavily and more overtime will be required to complete many projects. Such high usage rates will inevitably create system failures. This will only add to the already backlogged list of programs waiting to test their equipment.

0004432

CAPITAL PURCHASES JUSTIFICATION
(Dollars in Thousands)

A. FY 1996/1997 BIENNIAL BUDGET

B. Department of the Navy/Research & Development

C. EYE-SAFE LASER TRACKER REPLACEMENT
LINE # AL6EL0001R

D. NAWC-AD

	FY 1993			FY 1994			FY 1995			FY 1996			FY 1997		
Element of Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost
Eye Safe Laser Tracker										1	560	560			
TOTAL												560			

Narrative Justification:
OPERATIONAL DATE: September 1996

Dynamically measures the 3-D position of aircraft during simulated aircraft recovery approaches at the test site. This equipment demonstrates key landing aid development concepts and capabilities prior to and throughout various NAWC API programs.

Utilizing leased equipment as opposed to purchasing the equipment can lead to invalid data because the same equipment may not be available for lease each time its needed. This results in program delays. In addition, the leased equipment must be installed, aligned, and calibrated specifically for NAWCAD test runway. This equipment is used approximately 45 days per year.

Anticipated Benefits: More efficient use of personnel in a downsizing environment since equipment will be on site and setup, calibration, and adjustments will not be necessary.

COST BENEFIT ANALYSIS HAS BEEN PERFORMED WITH:

Payback Period = 2.7 years
Return on Investment (ROI) = 28%
Average Annual Savings = $154K

Economic Analysis Impact:
Non-procurement will perpetuate the problem of executing tasks that are error-pron and time consuming. Where semi-automated tools are available they are currently not standard between users and are awkward to use together.

000433

CAPITAL PURCHASES JUSTIFICATION
(Dollars in Thousands)

A. FY 1996/1997 BIENNIAL BUDGET

B. Department of the Navy/Research & Development

C. Open Architecture Avionics Display Sys Replacement
LINE # AW6EL7501R

D. NAWC-AD

Element of Cost	FY 1993 Qty	FY 1993 Unit Cost	FY 1993 Total Cost	FY 1994 Qty	FY 1994 Unit Cost	FY 1994 Total Cost	FY 1995 Qty	FY 1995 Unit Cost	FY 1995 Total Cost	FY 1996 Qty	FY 1996 Unit Cost	FY 1996 Total Cost	FY 1997 Qty	FY 1997 Unit Cost	FY 1997 Total Cost
Open Architecture Avionics Display System										1	550	550			
TOTAL												550			

Narrative Justification:
OPERATIONAL DATE: June 1996

This system will provide a prototype open architecture alternative to current closed proprietary designed avionics systems. The system will use an open Commercial-off-the-shelf approach to construct a prototype avionics package for fixed and vertical wing surveillance platforms. The system will interface with existing on aircraft sensors, navigation and communiation systems. The system will include three compoents (a) a set of display heads for operator viewing of sensor and tactical data, (b) a procesor and interface component to format data for the displays and interface with other avionics systems, and (c) a set of operator entry components which will provide the air crew with the ability to enter data and respond to system processing.

COST BENEFIT ANALYSIS HAS BEEN PERFORMED WITH:

Payback Period = 2.9 years
Return on Investment (ROI) = 25%
Average Annual Savings = $138K

Economic Analysis Impact:

This system will demonstrate the performance, cost, and power savings over traditional closed architecture systems. The performance improvements will be 4 fold, power savings 3 fold, and cost savings 4 fold over existing designs. The new system will reduce power and cooling annually by 50% and maintenance by 75%. Productivity will increase by 40% which will result in reduced manpower requirement from 4 workyears to 2.5 workyears.

000434

CAPITAL PURCHASES JUSTIFICATION
(Dollars in Thousands)

A. FY 1996/1997 BIENNIAL BUDGET

B. Department of the Navy/Research & Development

C. INSTRUMENTATION UPGRADE REPLACEMENT
LINE # WC7EL0502R

D. NAWC-WD

	FY 1993			FY 1994			FY 1995			FY 1996			FY 1997		
Element of Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost
Hardware													1	750	750
Software															
Installation													1	250	250
Other															
TOTAL														1,000	1,000

Narrative Justification:
OPERATIONAL DATE: October 1998

DESCRIPTION: Weapons Survivability Lab (WSL) is the premiere test site for aircraft survivability and related testing. Past tests have looked at survivability of the F-4 Phantom, the F-14 Tomcat, the A-6 Intruder, the F/A-18 Hornet, the cancelled P-3 and A-12, and Air Force airplanes including the F-15 Eagle and the F-22. Current test subjects include the F/A-18 E/F upgrade, the AX and the V-22 Osprey. The capability of the High Velocity Airflow System (HIVAS) to generate 500 kt airflow over test specimens makes WSL invaluable.

This procurement will purchase modern test support equipment for the WSL and service or replace existing equipment including instrumentation amplifiers, instrumentation tape recorders, instrumentation equipment rooms, event sequencer, digital oscilloscopes, pulse code modulated (PCM) equipment and landlines to test pads. Upgrade or replace existing control room equipment such as switches, control panels, and digital meters.

WSL is an example of leading-edge technology in aircraft survivability testing, vulnerability assessment, gunfire and ordnance damage assessment, etc... The integrity of WSL will quickly deteriorate if its technology is allowed to become obsolete. Failure to provide funding for this effort will result in a continued decline in the control and instrumentation capabilities of WSL, resulting in lost data, lost test opportunities, and customer dissatisfaction.

COST BENEFIT ANALYSIS HAS BEEN PERFORMED WITH:

Payback Period = 5.4 years
Return on Investment (ROI) = 15%
Average Annual Savings = $154K beginning October 1998

CAPITAL PURCHASES JUSTIFICATION
(Dollars in Thousands)

A. FY 1996/1997 BIENNIAL BUDGET

B. Department of the Navy/Research & Development

C. CONCURRENT ENGR. WORKGROUP SYSTEM PRODUCTIVITY
LINE # WC3EL0010P

D. NAWC-WD

	FY 1993			FY 1994			FY 1995			FY 1996			FY 1997		
Element of Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost
Hardware										1	1,150	1,150	1	975	975
Software										1	300	300	1	225	225
Installation															
Other															
TOTAL											1,450	1,450		1,200	1,200

Narrative Justification:
OPERATIONAL DATE: May 1995
DESCRIPTION: This procurement consists of an integrated system which is being developed in several phases. In Phase I (FY92) the objective was to begin meeting current obligations of the Microprocessor Design Center, the Electronic Design and Simulation Facility, the Airframe Division Computer Aided Engineering (CAE) System, Weapon Systems Analysis System and to establish a prototype Concurrent Engineering Workgroup system. In our current phase (Phase II) the objective is to complete the obligations of each division and to expand the capabilities established in Phase I of the Concurrent Engineering Workgroup (CEW) system and migrate these technologies into the other Divisions. The Phase III objective is to expand the networking environment of the Department to provide access to the key elements of the CE system. These key elements consist of: 1) a shared information model that captures complete descriptions of the product and all associated process activities and organizational resources; 2) a global object framework, utilities, and services that enable the use of the shared information model by a network of cooperating, computer-based clients; and 3) methods, tools and advisors that assist in concept evaluation, analysis, and decision making.

The Naval Air Warfare Center is actively pursuing CE projects throughout the Center. However, the technical aspects of CE are not being addressed. The three phased approach presented above will provide the foundation for CE technologies to be exploited. A key aspect of the CE technologies is the CALS initiative. The envisioned system will enable developed products to be CALS compliant and insure that the data transfer between multiple organizations, multiple disciplines, and multiple facilities will be seamless and understandable. Much of the system consists of design and analysis equipment and software. By focusing on an enterprise-wide development of tools such as CAD, CAE, CAM, and CAPP, more design iterations will occur (better quality), productivity will be enhanced (less time), and schedules will be compressed (less cost).

The National Institute for Standards sponsored an IDA report to investigate the benefits of concurrence in product development. This report stated that CE can reduce development time 30-50%, engineering changes 65-90%, time to market 20-90%, and increase overall quality 200-600%. It further stated that the productivity in organizations that adopted CE practices was up 20-110%. Industry leaders such as General Electric, Texas Instruments, Westinghouse, and Boeing are all claiming profound success by using CE technologies. This system will address the key technical issues associated with CE.

If this system is not procured the initial investment in Phase I will be nullified. There is a current investment of $879K in Phase I in the Microprocessor Design Center, the Electronic Design and Simulation Facility, the Airframe CAE System, and the Weapon Systems Analysis System. If the follow-on Phases are not implemented met, then our competitive advantage will be jeopardized, equipment and software will be outdated, inadequate and unable to execute state-of-the-art applications, NAWCWD needs to maintain the fundamental foundations to utilize CE and CALS technologies.

COST BENEFIT ANALYSIS HAS BEEN PERFORMED WITH:
Payback Period = 1.8 year
Return on Investment (ROI) = 39%
Average Annual Savings = $2,285K beginning in May 1995

000436

CAPITAL PURCHASES JUSTIFICATION
(Dollars in Thousands)

A. FY 1996/1997 BIENNIAL BUDGET

B. Department of the Navy/Research & Development

C. NEW FLIGHT TEST INSTRUMENTATION NEW CAPABILITY
LINE # WP3EL4004N

D. NAWC-WD

	FY 1993			FY 1994			FY 1995			FY 1996			FY 1997		
Element of Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost
Equipment - Instrumentation										1	200	200	1	700	700
TOTAL											200	200		700	700

Narrative Justification:
OPERATIONAL DATE: October 1995

DESCRIPTION: Hybrid chips process multiple analog data sources and output them as a single pulse code modulation data stream. Presently there are no spare chips and the original manufacturer will not commit to manufacture more. A replacement part has been identified and the procurement of 10 spares is essential to avoid severely impacting the NAWCWD flight test operations and the loss of data and/or flight test.

The encryptors are required to encode the telemetry data signal'form the aircraft. Encrypted data is required for security purposes. One additional encryptor is needed for each Real Time Telemetry (RTTM) data stream transmitted to support the required system availability. If the encryptors are not installed on the aircraft the engineers would be unable to transmit data from that aircraft and therefore unable to evaluate the data in real time. This would prevent us from performing about 90% of the testing required to support the programs at NAWCWD Pt. Mugu. Modern technology instrumentation systems are required to meet the new more sophisticated aircraft weapon system T&E requirements. Without adequate capability to meet these new requirements, each lost flight test may cost up to $40K. This will lead to program delays and increased costs for testing.

Without the encryptors, the engineers would be unable to transmit data from the aircraft and would therefore be unable to evaluate the data in real-time. Failure on the part of NAWCWD Pt. Mugu to support flight test aircraft by maintaining a minimum level of technical ability would adversely impact its reputation as a leader in weapons evaluation and its ability to attract new projects/customers.

COST BENEFIT ANALYSIS HAS BEEN PERFORMED WITH:

Payback Period = 3 years
Return on Investment (ROI) = 25%
Average Annual Savings = $492K

000437

CAPITAL PURCHASES JUSTIFICATION
(Dollars in Thousands)

A. FY 1996/1997 BIENNIAL BUDGET

B. Department of the Navy/Research & Development

C. Elec Sys Dept/Environmental Test Upgrades
NEW MISSION
LINE # AX6EL0014N

D. NAWC

	FY 1993			FY 1994			FY 1995			FY 1996			FY 1997		
Element of Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost
Elec Sys Dept/Environmental Test Upgrades										1	674	674			
TOTAL												674			

Narrative Justification:

Operational Date: December 1997

This submission is to upgrade the walk-in temperature/altitude chamber, replace one 300 HP drivestand and upgrade MIL-STD-461 EMI test instrumentation. The Walk-in chamber will provide ultra low temperature for testing aircraft power generators and associated components. The new system will provide advanced automated controls and safety interlocks, and will be environmentally "safe" by using non ozone depleting refregerants. A 500 HP drivestand will provide a new capability to test the next generation aircraftgenerator at loads up to 540KVA. The drivestand will consist of a 500 HP motor, controls and instrumentation, load bank, and gearbox assembly. EMI instrumentation upgrades will automate testing. Upgrades consist of radio frequency voltmeter; high frequency analyzer and synthesizer; radio frequency amplifier, ultra high power audio amplifier, high power coupling transformers, and a control system.

Payback Period: 3.2 years
Return on Investment: 24%
Average Annual Savings: $159K

Economic Analysis Impact:
Failure to replace the refrigeration system will result in work stoppage if a replacement refrigerant is not available. In addition, lack of automated shutdown when the chamber refrigeration system is operating outside of limits could result in catastrophic failure and loss of test capability.

The electrical Systems Department is the only DOD test and evaluation activity with the capability to conduct full qualification testing of aircraft electrical power systems. Without the 500 HP drivestand we will not be able to test the increased capacity generators proposed for new aircraft designs.

EMI testing is very expensive because of special calibration and maintenance requirements. Failure to automate EMI testing will result in increased costs and loss of work because of the cost of testing.

CAPITAL PURCHASES JUSTIFICATION
(Dollars in Thousands)

A. FY 1996/1997 BIENNIAL BUDGET

B. Department of the Navy/Research & Development

C. CASS STATION EQUIPMENT
NEW MISSION
LINE # WP7EL000XN

D. NAWC-WD

Element of Cost	FY 1993 Qty	FY 1993 Unit Cost	FY 1993 Total Cost	FY 1994 Qty	FY 1994 Unit Cost	FY 1994 Total Cost	FY 1995 Qty	FY 1995 Unit Cost	FY 1995 Total Cost	FY 1996 Qty	FY 1996 Unit Cost	FY 1996 Total Cost	FY 1997 Qty	FY 1997 Unit Cost	FY 1997 Total Cost
CASS Station Equipment													1	1,728	1,728
TOTAL															1,728

Narrative Justification:
OPERATIONAL DATE: 1998

This request results from the design and development of modularly constructed Automated Test Equipment (ATE). The development program was executed in response to fleet concerns regarding serious deficiencies in existing ATE and recommendations of an extensive 1976 SECNAV study on test equipment. The Consolidated Automated Support System (CASS) design incorporates easily reconfigurable modules which can address varying test requirements (e.g. electro-optical, radio frequency, laser, infrared, inertial guidance, etc.) and will also allow modification to meet the demands of future technologies.

CASS is the Navy's latest state-of-the-art avionics automated test equipment to be used to test present and future complex weapons system. CASS will eventually replace the existing testers which includes both common and peculiar ATE. Common ATE has the capability to test electronic assemblies from many different weapon systems, while peculiar ATE tests only one weapon system. CASS represents an approach to testing which consolidates the numbers and types of testers used to implement electronics support. CASS has a standard, yet open-ended system architecture that uses a set of standard test modules from which different configurations are composed to meet specific user test requirements. Only the number of test modules and their collective packaging change to adapt to different user needs. Utilizing the CASS architecture, low-level modules, and a distributed computing systems, it is possible to produce CASS configurations optimized to the particular application. These can range from multiple rack-mounted configurations. All share common assets and software and allow Test Program Set transportability. The four rack-mount configurations include a hybrid tester, RF configuration, Electro Optic configuration and communication/navigation/identification (CNI) configuration.

The CASS program will increase weapon system material readiness, reduce life cycle costs through standardization, improve tester sustainability at depot and intermediate maintenance levels, and provide Navy-wide test capability for existing and future avionics systems. CASS will increase repair facility throughput capability, reduce spare parts and personnel training requirements, and significantly reduce the space required for avionics testing aboard space critical aircraft carriers.

ECONOMIC ANALYSIS HAS BEEN PERFORMED WITH:

Payback Period = 2.9 years
Return on Investment = 25%
Average Annual Savings = $439K

000439

CAPITAL PURCHASES JUSTIFICATION
(Dollars in Thousands)

A. FY 1996/1997 BIENNIAL BUDGET

B. Department of the Navy/Research & Development

C. Non-ADP Equipment (<$500,000)

LINE # NES0000

D. NAWC

Element of Cost	FY 1993 Qty	FY 1993 Unit Cost	FY 1993 Total Cost	FY 1994 Qty	FY 1994 Unit Cost	FY 1994 Total Cost	FY 1995 Qty	FY 1995 Unit Cost	FY 1995 Total Cost	FY 1996 Qty	FY 1996 Unit Cost	FY 1996 Total Cost	FY 1997 Qty	FY 1997 Unit Cost	FY 1997 Total Cost
Aircraft Division												7,458			6,584
Weapons Division												3,599			3,057
TOTAL												11,057			9,641

Narrative Justification:

See Attached.

000410

CAPITAL PURCHASES JUSTIFICATION
NAVAL AIR WARFARE CENTER
ATTACHMENT FOR 9B EXHIBIT
NES0000 NON-ADP EQUIPMENT (< $500,000)
($ IN THOUSANDS)

LINE #		DESCRIPTION	FY96	FY97
		AIRCRAFT DIVISION		
A S 6	ES0000R	CALIBRATION LAB EQUIPMENT (VARIOUS)	713	
A W 6	ES5408R	AN/URR-81 SONOBUOY RECEIVER SYSTEM	485	
A A 6	ES0000	MISCELLANEOUS EQUIPMENT	468	
A I 3	ES0000R	EQUIPMENT INSTALLATION	300	300
A W 6	ES5209R	PORTABLE TRANSMIT TOWERS FOR ANTENNA RANGE	300	
A L 6	ES0001R	ENVIRONMENTAL STRESS SCREENING TEST SYSTEM	300	
A W 6	ES7505R	MULTI-BAND/SENSOR AVIONICS INTEGRATION STATION	275	
A W 6	ES6504R	TRAVERSE FOR LASER VELOCIMETER	250	
A I 6	ES5703R	X-RAY PREDRILL PUNCH	250	
A W 6	ES7507R	ADVANCED AVIONICS PERFORMANCE MONITORING	250	
A I 6	ES5719R	PLATING A & E	230	
A I 5	ES7411R	TEMPERATURE/ALTITUDE TEST CHAMBERS	225	
A X 6	ES0049R	VP & VS ACOUSTIC TEST/RACAL RECORDER	200	
A I 6	ES5005R	ACOUSTIC IMAGING INSTRUMENT	170	
A L 6	ES0021R	Fire Fighting Pumper Truck	150	
A I 6	ES5704R	OPTICAL POST ETCH PUNCH	150	
A I 4	ES5908R	ENVIRONMENTAL TEST CHAMBER	150	150
A I 6	ES5008R	FLIP CHIP ALIGNER BONDER	135	
A L 6	ES0020R	Video Teleconference System	135	
A W 6	ES6607R	AUTOMATED STRAIN MEASUREMENT SYSTEM	120	
A W 6	ES6605R	HIGH-TEMP ENVIRON/VACUUM FURNACE	120	
A I 6	ES5516R	NETWORK ANALYZER HP8722C	110	
A X 6	ES0047R	VQ LAB	100	
A X 6	ES0048R	VAW LAB	100	
A L 6	ES0013R	Radar Cross Section System	98	
A L 6	ES0003R	Spectrum Analyzer	97	
A L 6	ES0022R	Crane, %-10 ton, ATU 4X4	95	
A L 6	ES0011R	Signal Plotting System	95	
A I 6	ES5517R	NOISE FIGURE MEAS. SYS. HP8970S	95	
A L 6	ES0009R	Thermal Shock Cahmber	95	
A L 6	ES0012R	Scanning Electron Microscope	95	
A I 6	ES5A10R	HARNESS/CABLING SYSTEM (3)	90	
A I 6	ES5A09R	SEMI-AUTOMATIC COIL WINDERS (3)	90	
A I 6	ES5006R	FAST FIRE THICK FILM FURNACE	90	
A I 6	ES5007R	SUBSTRATE CONTINUITY TESTER	80	
A I 6	ES5918R	DIGITIZING O'SCOPE (2) HP54124T	76	
A L 6	ES0016R	Spectrum Analyzer	75	
A L 6	ES0007R	Vibration Monitoring System	69	
A L 6	ES0010R	Electro-Magnetic Pulse Shielded Enclosure	67	
A L 6	ES0006R	Energy Dispersive X-ray System	67	

CAPITAL PURCHASES JUSTIFICATION
NAVAL AIR WARFARE CENTER
ATTACHMENT FOR 9B EXHIBIT
NES0000 NON-ADP EQUIPMENT
($ IN THOUSANDS)

LINE #		DESCRIPTION	FY96	FY97
		AIRCRAFT DIVISION		
AL6	ES0002R	Puise-Code-Modulation Decomulator System	65	
AL6	ES0014R	Electronic Controller	63	
AI6	ES5915R	DEGREASER REPLACEMENT	60	
AX6	ES0056R	HP8791 FASS	55	
AL6	ES0017R	Universal Measuring Sytem	55	
AL6	ES0015R	MTS Micro-Console	50	
AI6	ES7411R	CAPILLARY ELECTROPHORESIS SYS.	50	
AW7	ES7501R	OPEN ARCHITECTURE SENSOR INTERCONNECT NETWORK		475
AL7	ES0001R	CNC TURNING CENTER		450
AX7	ES0061N	DYNAMIC COLLIMATOR		385
AX7	ES0060N	WIDE FIELD OF VIEW COLLIMATOR		385
AX7	ES0059N	AIRCREW SYSTEMS LIGHTING LAB UPGRADE		359
AI7	ES5703R	AUTOMATIC ELECTROPLATING LINE		350
AX7	ES0058R	ELECTRICAL SYSTEMS DEPT/ENV TEST UPGRADE		306
AI7	ES5704R	ELECTROLESS/DESMEAR LINE		260
AL7	ES0006R	SOLAR RADIATION FACILITY		235
AL7	ES0012R	AIRCRAFT CRASH/RESCUE TRUCK		230
AX7	ES0054R	VP & VS ACOUSTIC TEST/RACAL RECORDER		200
AL7	ES0003R	Signal Conditioning System		190
AW7	ES6603R	HIGH TEMP POLYMERIC SYSTEM		180
AA7	ES0000	MISCELLANEOUS EQUIPMENT		163
AI5	ES7411R	TEMP./ALTITUDE TEST CHAMBERS		155
AW7	ES7505R	ADVANCED BUS/NETWORK MONITOR		150
AI7	ES5705R	AUTOMATED OXIDE LINE		150
AX7	ES0052R	GROUND ELECTRONICS EQUIPMENT		150
AL7	ES0005R	X-ray Fluorescence Analyzer		105
AX7	ES0055R	VAW LAB		100
AI7	ES5A06R	WIRE PREP MACHINE		100
AX7	ES0053R	VQ LAB		100
AW7	ES7911R	SPECTRUM ANALYSIS TOOLSET		100
AL7	ES0002R	Received System With software		97
AL7	ES0007R	Grips Upgrade/Four Post Frame		90
AL7	ES0004R	Photo Imaging System		90
AI7	ES5508R	SPECTRUM ANALYZER HP8566B		75
AL7	ES0010R	Hi-Speed Video		75
AL7	ES0009R	Digitizing Oscilloscope		70
AL7	ES0008R	Spectrum analyzer		65
AI7	ES5510R	MIL-STD 1553 BUS ANALYZER		60
AI7	ES5909R	SIGNAL GENERATOR HP83640A		60
AL7	ES0011R	Forklift, Three Ton, Gas		60

CAPITAL PURCHASES JUSTIFICATION
NAVAL AIR WARFARE CENTER
ATTACHMENT FOR 9B EXHIBIT
NES0000 NON-ADP EQUIPMENT
($ IN THOUSANDS)

LINE #		DESCRIPTION	FY96	FY97
		AIRCRAFT DIVISION		
A I 7	ES5511R	MICROWAVE ANALYZER HP8510C		58
A I 7	ES7407R	VIBRATION AMPLIFIER SYSTEM		56
AIRCRAFT DIVISION NON-ADP EQUIPMENT (<$500,000)			7,458	6,584

CAPITAL PURCHASES JUSTIFICATION
NAVAL AIR WARFARE CENTER
ATTACHMENT FOR 9B EXHIBIT
NES0000 NON-ADP EQUIPMENT (<$500,000)
($ IN THOUSANDS)

LINE #	DESCRIPTION	FY96	FY97
	WEAPONS DIVISION		
W C 6 ES0565	CNC LATHE	454	
W C 6 ES0567	FIRE PROTECTION SYSTEM	382	
W C 6 ES0568	SELECTIVE LASER SINTERING MACHINE	350	350
W P 6 ES0570	VIBRATION SYSTEM	290	
W C 6 ES0571	SPUTTERING SYSTEM PHASE I-III	263	222
W C 6 ES0572	W-BAND NETWORK ANALYZER	258	
W C 6 ES0573	MICROWAVE TEST STATION	230	
W P 6 ES5025	BLDG 513 AIR COMPRESSOR	185	
W C 6 ES0574	OPTICAL COMPONENT CHARACTERIZATION	177	155
W C 5 ES0530	GPS SIMULATOR UPGRADES	175	
W P 5 ES5020	DATA ANALYSIS W/S	150	150
W C 6 ES0575	ARGON ION DYE LASER	150	
W C 6 ES0576	INCOHERENT INTERFEROMETER	150	
W C 6 ES0577	CHEMICAL VAPOR DEPOSITION UPGRADE	130	
W C 5 ES0541	EMERGENCY RADIO SYSTEM PHASE II - IV	110	105
W P 6 ES5026	SOLAR RADIATION TEST	100	
W W 6 ES0000	MISCELLANEOUS EQUIPMENT	45	
W C 7 ES0579	UPGRADE FOR NMR SOLIDS		460
W C 7 ES0580	LASER RADAR SYSTEM		395
W C 7 ES0581	TWO COLOR INFRARED IMAGERS		254
W P 7 ES5027	COMPRESSER 3000CF		155
W C 7 ES0582	SPARES FOR TCIR (T ITEMS)		150
W C 7 ES0583	MICRODYELECTROMETER		105
W C 7 ES0584	PURCHASE SHOP MACHINES		105
W C 7 ES0585	HIGH PRESSURE FACILITY UPGRADE		100
W C 7 ES0586	INSTRUMENTATION TAPE RECORDER		100
W C 7 ES0587	HP NOISE FIG MEASURMENT		86
W C 7 ES0588	CAPILLARY/SLIT RHEOMETER		60
W C 7 ES0589	VIDEO LABELING SYSTEM		55
W C 7 ES0590	DIGITAL DATA RECORDER		50
WEAPONS DIVISION NON-ADP EQUIPMENT (<$500,000)		3,599	3,057

CAPITAL PURCHASES JUSTIFICATION
(Dollars in Thousands)

A. FY 1996/1997 BIENNIAL BUDGET

B. Department of the Navy/Research & Development

C. CADS II WORKSTATIONS REPLACEMENT
LINE # AI4KL3701R

D. NAWC-AD

Element of Cost	FY 1993 Qty	FY 1993 Unit Cost	FY 1993 Total Cost	FY 1994 Qty	FY 1994 Unit Cost	FY 1994 Total Cost	FY 1995 Qty	FY 1995 Unit Cost	FY 1995 Total Cost	FY 1996 Qty	FY 1996 Unit Cost	FY 1996 Total Cost	FY 1997 Qty	FY 1997 Unit Cost	FY 1997 Total Cost
CADS II Workstations										1	3,000	3,000	1	3,261	3,261
TOTAL											3,000	3,000		3,261	3,261

Narrative Justification:
OPERATIONAL DATE: June 1995

CADS II is a NAVAIR contract for procurement of Engineering workstations to standardize the workstations under NAVAIR control. The primary purpose of CADS II will be to increase the productivity of design engineers and improve the quality of electronic systems and documentation produced by the Navy. This capability will allow the Naval Air Warfare Center (NAWC) to be compatible with other NAVAIR facilities to allow concurrent engineering of systems. Also, these workstations will improve productivity of the NAWCAD design engineers by replacing existing systems with new tools which will greatly reduce the cost of producing microelectronic devices. The CADS II workstations will be procured over a period of four years, beginning in FY 1994.

COST BENEFIT ANALYSIS HAS BEEN PERFORMED WITH:

Payback Period = 1.7 years
Return on Investment (ROI) = 50%
Average Annual Savings = $5,023K

ECONOMIC ANALYSIS IMPACT:

If the CADS II design workstations are not procured, NAWCAD will continue using their existing, outdated DAISEY 80286 and BRAVO workstations. A labor savings of just under 1.3 million dollars will not be realized. NAWCAD will not be able to perform the new standards being set in the industry and the potential for losing valuable programs will exist.

000445

CAPITAL PURCHASES JUSTIFICATION
(Dollars in Thousands)

A. FY 1996/1997 BIENNIAL BUDGET

B. Department of the Navy/Research & Development

C. LOCAL AREA NETWORK (LAN) REPLACEMENT
LINE # AL3KL0001R

D. NAWC-AD

	FY 1993			FY 1994			FY 1995			FY 1996			FY 1997		
Element of Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost
Local Area Network (LAN)										1	1,000	1,000	1	1,000	1,000
TOTAL												1,000			1,000

Narrative Justification:
OPERATIONAL DATE: September 1995

This system is a broad fiber backbone cabling architecture for data, voice, security, and graphics for the entire Command. The system will provide wide communications, resource sharing, office automation productivity tools, and standard application software. The Command's ability to meet customer needs requires the ability to receive and process information and to utilize the benefits derived from the LAN. These benefits include time saved in communicating and transmitting documents, standard productivity tools for personnel, and the ability to share and transfer data. With the current (and continuing) environment of downsizing, this system will offer the required capability to share resources such as laser printers, plotters, and mass storage devices. This will mean fewer fully equipped individual workstations, reduced personnel rework, and improved data transmission. The work can be accomplished with fewer personnel resources only if work processes are automated and streamlined.

The communication links at NAWCAD Lakehurst are required because the site utilizes Cognizant Field Activity (CFA) and serves as a focal point for the Hierarchal Integrated Test Simulator (HITS) system software. The support systems and database management systems include the Operational Management System, System Synthesis Model, the Tailored Outfitting List, CASS Tracking System (CASSTRAC), Standards Acquisition Tracking System (STATS), etc. The user community for these systems are quite broad and are increasing in numbers which will require the capability to connect with optimized performance.

IMPACT: To halt the installation, leaving partially installed local organization networks, incomplete equipment configuration, and insufficient software risks will cripple the way we do business and it will cause us to backtrack and recoup with stand alone systems and islands of information. The cost of the effort invested so far will be considered wasted, equipment purchased will not be fully utilized, and the rework involved in returning to some of the old ways information flowed (orally, hand carried or floppy disks) has not yet been quantified. Because the LAN is a system its effect on the Command is dependent upon its completion. Anticipated total savings of $6 million will be unattainable unless we are allowed to continue to pursue implementation of this information system. Delays endanger our ability to pickup where we left off because technological changes and advancements increase the possibility of incompatibility or inter-operability with previously procured and installed systems. This will cause additional and unplanned expenses to shoe-horn fit dissimilar systems into our current configuration.

COST BENEFIT ANALYSIS HAS BEEN PERFORMED WITH:

Payback Period = 2 years
Return on Investment (ROI) = 44%
Average Annual Savings = $2,553K

000446

CAPITAL PURCHASES JUSTIFICATION
(Dollars in Thousands)

A. FY 1996/1997 BIENNIAL BUDGET

B. Department of the Navy/Research & Development

C. COMMUNICATIONS SYSTEM UPGRADE REPLACEMENT
LINE # WC3TL0084R

D. NAWC-WD

Element of Cost	FY 1993 Qty	FY 1993 Unit Cost	FY 1993 Total Cost	FY 1994 Qty	FY 1994 Unit Cost	FY 1994 Total Cost	FY 1995 Qty	FY 1995 Unit Cost	FY 1995 Total Cost	FY 1996 Qty	FY 1996 Unit Cost	FY 1996 Total Cost	FY 1997 Qty	FY 1997 Unit Cost	FY 1997 Total Cost
Hardware										1	1,690	1,690	1	1,690	1,690
Software										1	130	130	1	160	160
Installation										1	100	100	1	100	100
Other															
TOTAL											1,920	1,920		1,950	1,950

Narrative Justification:
OPERATIONAL DATE: Continuous

DESCRIPTION: This procurement will provide upgraded hardware for use system wide and for addition of capabilities in certain portions of NAWC China Lake's corporate communication system. The hardware is typically in the form of bridges, gateways, routers and network management systems. These are used to replace failed and obsolete units in the existing system, to extend the system to buildings not currently served, or to upgrade the capabilities of existing service. The upgrades are needed to make the system compatible with user computer and communication requirements or with network management requirements. Currently upgrades are needed to provide additional bandwidth and data speeds to allow the science and engineering community to utilize high performance networked workstations, to downsize from mainframes to distributed high power workstations, to distribute video, and to comply with project directives mandating the use of an engineering data distribution, storage and processing. All of these processing modes assume the existence of a robust communications foundation and architecture with high speed links to other sites nationwide.

The communications systems supported by this project are essential elements to the productivity requirements of doing more scientific and engineering work with fewer personnel who need to work in an integrated fashion but who are geographically spread around this site and the country as a whole.

If the network is not upgraded, NAWC China Lake will be plagued by operating in an environment of outdated technology which spawns inefficiencies and inadequate performance. Productivity will be severely impacted. The network has already begun to show signs of inadequacy, slow response times, failing applications from lack of memory, and denial of services. Repairs and trouble calls have increased. If the bridge to isolate a segment of the ethernet is not purchased, congestion will occur as more computers are added to the network.

COST BENEFIT ANALYSIS HAS BEEN PERFORMED WITH:

Payback Period = 1.8 years
Return on Investment (ROI) = 47%
Internal Rate of Return = 41%
Average Annual Savings = $3,317K

000447

CAPITAL PURCHASES JUSTIFICATION
(Dollars in Thousands)

A. FY 1996/1997 BIENNIAL BUDGET

B. Department of the Navy/Research & Development

C. C-LAN REPLACEMENT
LINE # WP4TL4003R

D. NAWC-WD

	FY 1993			FY 1994			FY 1995			FY 1996			FY 1997		
Element of Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost
Workstation Interface													200	.2	40
RF Components													1	75	75
Bridges/Routers													4	15	60
NCC Test Equipment										1	75	75	1	75	75
NCC Monitoring Bridges										1	50	50	1	50	50
UPS for Remote Bridge										1	50	50	1	50	50
TOTAL											175	175		350	350

Narrative Justification
OPERATIONAL DATE: May 1995

DESCRIPTION: The workstation interface cards are required to provide network connectivity for new users and to replace obsolete or failing equipment. Network connectivity allows sharing of documents, electronic mail, and very fast transfer of data.

Command-Local Area Network (C-LAN) RF components and the bridges and routers are required to replace existing equipment and add new connectivity. All bridges and routers are managed from a central location (the NCC- Network Control Center).

The current NCC needs improvements to be able to effectively monitor and if possible repair C-LAN network components. Additionally, a test setup is being designed and built so that new hardware and software can be tested before use on C-LAN. This test bed will also be used for trouble shooting.

Model 2502 out of band monitoring bridges will be used to monitor and repair the network remotely. In many places on the C-LAN, if the network goes down the ability to repair is lost because the network itself is used to transmit the commands.

The UPS (Uninteruptable Power Supply) is used to keep the network up during brief power failures and to allow organized shutdown in the event of a long term failure.

Without replacement parts, bridges and gateways, the existing network would begin failing piece by piece. The C-LAN network has become a critical communication tool for communication and data transfer between all NAWC sites. Therefore, the labor cost savings are a combination of productivity savings for users as well as decreased labor costs in network maintainability.

COST BENEFIT ANALYSIS HAS BEEN PERFORMED WITH:

Payback Period = 3 years
Return on Investment (ROI) = 30%
Average Annual Savings = $379K

000418

CAPITAL PURCHASES JUSTIFICATION
(Dollars in Thousands)

A. FY 1996/1997 BIENNIAL BUDGET

B. Department of the Navy/Research & Development

C. COMPETITIVE ENGR.ENVIRONMENT REPLACEMENT
LINE # WC4KL0401R

D. NAWC-WD

	FY 1993			FY 1994			FY 1995			FY 1996			FY 1997		
Element of Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost
Hardware										1	105	105	1	107	107
Software										1	82	82	1	118	118
Installation													1	51	51
Other															
TOTAL											187	187		276	276

Narrative Justification:
OPERATIONAL DATE: December 1995

DESCRIPTION: The Competitive Engineering Environment consists of numerous workstations, personal computers, file servers, computer peripherals, software, and data bases connected via a network infrastructure and scattered organizationally throughout the Department. This procurement will take place over a four year period, beginning in FY 1994. The goal of this procurement is to continue to increase the availability of this working environment to department personnel so that tasks can be accomplished in a more cost effective manner with improved accuracy. The use of this environment has already resulted in better communication, increased savings, and improved product quality. The plan for FY 1995 is to enhance the Competitive Engineering Environment by performing the following specific items: (1) Expansion of the network to include outlying buildings not yet networked; (2)an electronic library; (3) User documentation for use of the network and network capabilities; (4) updating obsolete equipment; (5) Implement a shared Application program & server; (6) Upgrade Network Management hardware and software tools.
The enhancement of the Competitive Engineering Environment will provide better communications both inside and outside the department and will provide new, more efficient tools for personnel. These tools will provide the capability for such things as Department wide inventories, databases and eventually real-time data gathering. These tools will become increasingly important as we address the increased emphasis on safety and the protecting of our environment. The goal is for this environment to eventually provide the capability for Department wide databases such as explosive inventories, Material Safety Data Sheets, hazardous waste accumulation tracking, and Standard Operating Procedures (SOP). Another goal is the eventual ability to provide computer control to energetic material processing and evaluation. The addition of network monitoring software and hardware will reduce the workload of the network administrator, allowing more time to be devoted to other aspects of the network. The addition of the modeling software and hydrocodes will enable engineers and technicians to use state-of-the-art tools to visualize concepts, determine critical design and performance parameters, simplify the development process by reducing trial and error testing, and reduce the cost of prototype hardware. The addition of the specifications and standards on line will permit personnel to have access to current specifications in a timely manner without having to travel to other locations.
These enhanced capabilities will provide continuous improvement in mission areas and will ultimately lower administrative and project costs and increase the efficiency of the department's personnel. With today's military environment, it has become increasingly important to improve our ability to deliver Ordnance and Propulsion System using fewer personnel resources, fewer funds, and shorter schedules. The Competitive Engineering Environment provides modern and sophisticated tools with which to accomplish this.
This is based on the concept that planning for the future is better than crisis management and that continuous improvement is critical. The Competitive Engineering Environment exists and is in use. Expanding this engineering environment to include additional features and capabilities will provide more capability for NAWCWPNS personnel. If not expanded, this capability will be postponed causing the system to become obsolete and its usefulness to deteriorate. NAWCWPNS may be left in a position where compliance to increasingly difficult requirements will not be possible. NAWCWPNS will lose its ability to be leaders in the development and testing of systems using energetic materials.

COST BENEFIT ANALYSIS HAS BEEN PERFORMED WITH:
Payback Period = 0.5 years
Return on Investment (ROI) = 46%
Average Annual Savings = $495K beginning in FY96

000449

CAPITAL PURCHASES JUSTIFICATION
(Dollars in Thousands)

A. FY 1996/1997 BIENNIAL BUDGET

B. Department of the Navy/Research & Development

C. IMAGE SYSTEM REPLACEMENT
LINE # WC5KL0506R

D. NAWC-WD

	FY 1993			FY 1994			FY 1995			FY 1996			FY 1997		
Element of Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost
Hardware										1	474	474	1	474	474
Software										1	640	640	1	640	640
Installation										1	40	40	1	40	40
Other										1	46	46	1	46	46
TOTAL											1,200	1,200		1,200	1,200

Narrative Justification:
OPERATIONAL DATE: January 1996

DESCRIPTION: The proposed Image System consists of a suite of open-architecture software products that provide an electronic alternative to conventional, paper-based business documents. The goal of this system and project is to provide a common NAWCWPNS solution to replacing paper-based business documents. The proposed system will provide (1) UNIX-based application servers, (2) client-server processing environment, (3) modifiable workflow capabilities, (4) interoperability with proposed and selected NAWCWPNS office automation tools, (5) graphical user interface, (6) end-user and system administration, (7) optical character recognition (OCR), (8) barcode recognition, (9) content based document retrieval, (10) support for engineering/technical documents, (11) fax input/output support, (12) computer output to laser disk, (13) support for Microsoft Windows, X-Windows, Macintosh, and OS/2 client workstations, (14) adherence to industry standards, and (15) scalable network topology.

The proposed system will be procured over a four year period, beginning in FY 1995, and is expected to benefit NAWCWPNS by providing an alternative means of handling up to 95% of the information that is currently paper-based. The present system is paper-based and is deficient to the extent of printing, managing, transferring, tracking and storing paper-based documents. The proposed system is expected to electronically replace the paper and also assist in the process of dealing with the information on the paper.

If not procured, individual codes will pursue their own image system solution as opposed to a NAWCWPNS solution, individual solutions may inhibit exchange/sharing of information, and the NAWCWPNS will continue to incur the cost of dealing with paper. The expected benefits of this system include; increased efficiency form processing the electronic information using various automated tools; reutilizing floor space that was once used for storing paper; common NAWCWPNS image system solution; increased information search capability and greater exchange of information.

COST BENEFIT ANALYSIS HAS BEEN PERFORMED WITH:

Payback Period = 4.5 years
Return on Investment (ROI) = 22%
Average Annual Savings = $773K beginning in FY96

000450

CAPITAL PURCHASES JUSTIFICATION
(Dollars in Thousands)

A. FY 1996/1997 BIENNIAL BUDGET

B. Department of the Navy/Research & Development

C. Reconfigurable Crew Station Upgrade
REPLACEMENT
LINE # AW5KL6205R

D. NAWC-AD

Element of Cost	FY 1993 Qty	FY 1993 Unit Cost	FY 1993 Total Cost	FY 1994 Qty	FY 1994 Unit Cost	FY 1994 Total Cost	FY 1995 Qty	FY 1995 Unit Cost	FY 1995 Total Cost	FY 1996 Qty	FY 1996 Unit Cost	FY 1996 Total Cost	FY 1997 Qty	FY 1997 Unit Cost	FY 1997 Total Cost
Reconfigurable Crew Stations Upgrade										1	254	254			
TOTAL											254	254			

Narrative Justification:
OPERATIONAL DATE: October 1996

The total procurement would consist of a network of Silicon graphics based computers to replace and upgrade those currently in the fixed-base Reconfiguragle Crewstation (RC) simulator. The requested items would be procured in two phases over fiscal years (FY) 95 and 96. The FY95 purchase would include a Silicon Graphics Onyx Reality Engine System, including all required operating systems, memory, disk drives, tape backups, other net connections, etc.; one Silicon graphics Indy system and peripherals; and system integration (installation) labor. The FY96 purchase would include five Silicon Graphics Indy Systems and peripherals, as well as system integration labor. These Indy Systems would utilize software developed using the components purchased in FY95.

The RC was conceived as a low cost human factors research and development platform in which projects deemed feasible could be moved into higher fidelity simulators such as the Dynamic Flight Simulator (DFS). The DFS is in the process of moving to a Silicon Graphics based architecture. By having both the RC and DFS using the same architecture, the net productivity can be expected to increase for both simulators, and the development costs for individual projects will drop significantly. Further, the commonality in software and hardware will increase reliability and decrease maintenance costs because hardware can be shared in the event of equipment failure, and the same support personnel can be used for both simulators.

COST BENEFIT ANALYSIS HAS BEEN PERFORMED WITH:
Payback Period = 3 years
Return on Investment (ROI) = 30%
Average Annual Savings = $247K

Economic Analysis Impact:

The RC will become an increasingly expensive, unreliable and obsolete tool for research if it is not updated and made compatible with other simulators in the very near future. NAWCAD will lose its leadership in advanced automation technology because it will not have the necessary tools available to evaluate this technology. Specifically, NAWCADWAR and Wright Labs are currently performing cooperative research to develop demonstration hardware to drive an adaptive automation system. The simulator which will host this demonstration will be a Silicon Graphics based system at Wright Laboratories. No suitable simulator is available at NAWCAD to incorporate this demonstration.

000451

CAPITAL PURCHASES JUSTIFICATION
(Dollars in Thousands)

A. FY 1996/1997 BIENNIAL BUDGET

B. Department of the Navy/Research & Development

C. Optical Disk Archiving System Replacement
LINE # AI5KL6102R

D. NAWC-AD

	FY 1993			FY 1994			FY 1995			FY 1996			FY 1997		
Element of Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost
Optical Disk Archiving System										1	167	167			
TOTAL												167			

Narrative Justification:
OPERATIONAL DATE: March 1995

The Epoch Optical Disk Archival System will be procured over a two year period beginning in FY 1995. It will provide automatic management to a user/group who has several gigabytes of data. It wil provide reliable, timely, accurate, and valuable corporate archival system resources. This system will provide increased memory, increased optical disk storage, and enhanced backups due to faster cpu. Automatic daily backup will reduce cost of re-entering lost data.

The current system cannot perform data backups in a timely manner due to a limited memory, the tape drive, and limited magnetic disk space. The current process places files on magnetic disk and later migrates them to optical disk. Each time files are accessed they must be returned to magnetic disk. During backup the system has to constantly migrate data to/from magnetic disk in order to do the backup. At the same time the system must migrate any data that the user accesses to optical disk. This is a time consuming process (approx. 18 hrs per 2 GB tape). The cost of floppy disks, tapes, and magnetic tapes are estimated at a cost of $125,000 per year.

COST BENEFIT ANALYSIS HAS BEEN PERFORMED WITH:

Payback Period = 1.9 year
Return on Investment (ROI) = 45%
Average Annual Savings = $254K

ECONOMIC ANALYSIS IMPACT:

NAWCAD depends heavily on ADP computer resources to accomplish its mission, involving research, engineering, manufacturing, quality assurance applications, computer aided design, etc. Current users are now being turned away because file sizes exceed 300MB. Future demands are increasing for optical disk storage and timely system performance. Workload projections support the need for reliable, timely, accurate and valuable archival system resources to the general user community.

000452

CAPITAL PURCHASES JUSTIFICATION
(Dollars in Thousands)

A. FY 1996/1997 BIENNIAL BUDGET

B. Department of the Navy/Research & Development

C. TAC-4 and AFMSS Mission Planning System REPLACEMENT
LINE # AW5KL7E03R

D. NAWC-AD

Element of Cost	FY 1993			FY 1994			FY 1995			FY 1996			FY 1997		
	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost
TAC-4 and AFMSS Mission Planning System										1	150	150	1	150	150
TOTAL												150			150

Narrative Justification:
OPERATIONAL DATE: May 1995

The TAC-4 and AFMSS Mission Planning System will be procured over a three year period, beginning in FY 1995. The Tactical Advanced Computer-4 (TAC-4) represents the 4th generation of the Navy's program for use of commercial computers to fulfill many of the requirements for shipboard and shorebased computing. In addition to the TAC-4 system, the TAMPS project plans to acquire an Air Force Mission Support System (AFMSS) computer. The TAMPS project personnel will perform the mission planning capabilities comparison between TAMPS and AFMSS to determine whether either system will provide the capabilities required for both the Navy and Air Force.

The TAC-4 system will provide significantly increased processing power. The AFMSS system will provide the means to evaluate the Air Force Mission Planning capabilities which requires different hardware than the current TAMPS hardware.

COST BENEFIT ANALYSIS HAS BEEN PERFORMED WITH:

Payback Period = 2.7 years
Return on Investment (ROI) = 33%
Average Annual Savings = $216K

Economic Analysis Impact:

Non-procurement of this system will result in failure to perform the future work assignment as the System Software Design Activity (SSDA) for the TAMPS project. These TAC computers are used in the Fleet and it is imperative that the labs be equipped with the same computers.

000453

CAPITAL PURCHASES JUSTIFICATION
(Dollars in Thousands)

A. FY 1996/1997 BIENNIAL BUDGET

B. Department of the Navy/Research & Development

C. Unix Corporate Server Environment
Expansion
Replacement
LINE # AX5KL0001R

D. NAWC-AD

Element of Cost	FY 1993 Qty	FY 1993 Unit Cost	FY 1993 Total Cost	FY 1994 Qty	FY 1994 Unit Cost	FY 1994 Total Cost	FY 1995 Qty	FY 1995 Unit Cost	FY 1995 Total Cost	FY 1996 Qty	FY 1996 Unit Cost	FY 1996 Total Cost	FY 1997 Qty	FY 1997 Unit Cost	FY 1997 Total Cost
Unix Corporate Server Environment Expansion										1	250	250	1	150	150
TOTAL											250	250		150	150

Narrative Justification:
Operational Date: March 1995

The purchase will consist of a 32-bit Reduced Instruction Set Computing (RISC) based Portable Operating Systems Information Exchange (POSIX) compliant Unix computer processing systems to expand FTEG's corporate data server capabilities to a distributed, controlled environment. This additional hardware and software would allow individual servers to be installed at the directorates and activities as local application or file servers. The systems will comply with open system standards and will allow fiber network connectivity. The minimum hardware and software requirements include a uni-processor computer platform, local tape backup, optical and magnetic disk storage, POSIX compliant operating system, and Ethernet and FDDI network connectivity. In addition, there will be a requirement for off-the-shelf database and business analysis software. The UNIX Corporate Server Environment Expansion will be procured over a period of three years, beginning in FY 1995.

The most significant unquantifiable benefit will be the high availability and timeliness of information for the Patuxent River engineer and manager. With distributed application servers, personnel can access one system or a network of systems to gather general information or aviation specific information.

COST BENEFIT ANALYSIS HAS BEEN PERFORMED WITH:

Payback Period: 0.4 years
Return on Investment: 215%
Average Annual Savings: $1,487K

Economic Analysis Impact:

With the anticipated growth of the Patuxent River aviation community, it is evident that not only will the Computer Sciences Directorate be impacted by not investing in an open, distributed processing environment, but all FTEG activities will be impacted, including those from Trenton and Warminster. The current system can support up to 64 users. With the influx of personnel to Patuxent River, the best solution is to distribute the application processing across the base and take advantage of the large communications network currently in place. Without additional servers, the current servers will become so bogged down that customers will have slow response time and turnaround when trying to meet their project deadlines.

000454

CAPITAL PURCHASES JUSTIFICATION
(Dollars in Thousands)

A. FY 1996/1997 BIENNIAL BUDGET

B. Department of the Navy/Research & Development

C. NAWCWD DBOF SYSTEM REPLACEMENT
LINE # WC5KL0510R

D. NAWC-WD

	FY 1993			FY 1994			FY 1995			FY 1996			FY 1997		
Element of Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost
Hardware													1	75	75
Software															
Installation															
Other															
TOTAL														75	75

Narrative Justification:
OPERATIONAL DATE: July 1996

DESCRIPTION: This is a two-phase hardware replacement/upgrade acquisition. Phase I in FY95 will replace obsolete computers which are 6-8 years old. Phase II in FY97 will replace the remaining obsolete computers which will be 5-7 years old. This system performs NAWCWD Defense Business Operations Fund (DBOF) financial and management services; maintains corporate database for costing, Navy Stock Fund financial records and subsidiary financial records; audits financial reports; prepares reimbursable orders and amendments; and develops and implements NAWCWD accounting policies and procedures. An additional two printers are required to augment the current two printers serving 40 users.

Due to increased usage, these machines are unable to handle the workload and, consequently, are constantly being repaired on a weekly basis. All these machines are at least 6 years old, the memory and speed of the machines are unable to keep up with the increased workload or handle the advanced software applications needed to meet additional reporting requirements. With the additional financial operational requirements at the multiple NAWCWD sites, these machines are costing more for repairs and are unable to meet the output requirement of additional headquarter's tasking, which cannot be responded to in a timely manner.

If this system upgrade is not implemented, equipment maintenance will dramatically increase in cost, and possibly additional shifts will be required to process the workload increase. This increase burden on the hardware will result in increased equipment breakdowns to the point where some work stoppage could occur. One alternative would be to contract out the work at a yearly cost of $840K. A second alternative could be a lease-to-purchase of the needed equipment. This would cost in excess of three times that of buying the equipment outright.

COST BENEFIT ANALYSIS HAS BEEN PERFORMED WITH:

Payback Period = 4 years
Return on Investment (ROI) = 24%
Average Annual Savings = $50K beginning in FY96

000455

CAPITAL PURCHASES JUSTIFICATION
(Dollars in Thousands)

A. FY 1996/1997 BIENNIAL BUDGET

B. Department of the Navy/Research & Development

C. SECURE NETWORK REPLACEMENT

LINE # WC5TL0512R

D. NAWC-WD

Element of Cost	FY 1993 Qty	FY 1993 Unit Cost	FY 1993 Total Cost	FY 1994 Qty	FY 1994 Unit Cost	FY 1994 Total Cost	FY 1995 Qty	FY 1995 Unit Cost	FY 1995 Total Cost	FY 1996 Qty	FY 1996 Unit Cost	FY 1996 Total Cost	FY 1997 Qty	FY 1997 Unit Cost	FY 1997 Total Cost
Hardware										1	60	60	1	80	80
Software										1	85	85			
Installation															
Other															
TOTAL												145			80

Narrative Justification:
OPERATIONAL DATE: May 1995

DESCRIPTION: Acquisition of file server/host to be situated in the Advanced Technology Support Program Office, building 31598, connected via secure data devices and phone lines to satellite offices on and off the center. Also required is a mass storage backup unit and software (C2 Unix operating system) to go with the acquisition of file server/host. The secure network will link 30-60 facilities that perform classified work. Currently each space, at most, processes in a stand alone mode of operation. This network will allow communication from the corporate office to each satellite, as well as allow communication between satellites on a need-to-know basis.

If not approved, continued use of at least one, often two, cleared personnel to hand-carry double wrapped classified information will be necessary. Security risks will continue to exist when classified information is taken outside an approved facility. Manhours lost due to personnel having to courier material is an expense which can be mitigated by the incorporation and funding of this secure network project.

COST BENEFIT ANALYSIS HAS BEEN PERFORMED WITH:

Payback Period = 3.5 years
Return on Investment (ROI) = 27%
Internal Rate of Return = 12%
Average Annual Savings = $92K beginning in FY96

000456

CAPITAL PURCHASES JUSTIFICATION
(Dollars in Thousands)

A. FY 1996/1997 BIENNIAL BUDGET

B. Department of the Navy/Research & Development

C. NAWCWD CORPORATE BUDGET SYSTEM REPLACEMENT
LINE # WC5KL0511R

D. NAWC-WD

	FY 1993			FY 1994			FY 1995			FY 1996			FY 1997		
Element of Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost
Hardware										1	50	50	1	45	45
Software															
Installation															
Other															
TOTAL											50	50		45	45

Narrative Justification:
OPERATIONAL DATE: July 1996

DESCRIPTION: The NAWCWD Corporate Budget provides planning expertise and guidance to NAWC Headquarters, NAVAIR, and Weapons Division Management. The working environment consists of DOS and Macintosh based computers, filer servers, computer peripherals, software, and data bases connected via a network infrastructure located in the Comptroller Department. This system upgrade will continue to increase the availability of this working environment to department personnel so that tasks can be accomplished in a more cost-effective, efficient manner with improved accuracy. This is a three-phase operation which will begin in FY95 and will upgrade computers between the age of 6 and 8 years. Phase II and III will complete the system upgrade.

The augmented resources of the NAWCWD Corporate Budget will provide extended capabilities and increased communication both inside and outside the Comptroller Department. The continued objective is to respond in a timely and efficient manner to higher-level internal and external management. Corporate Budget supports the ongoing mission of gathering, assimilating, preparing and presenting NAWCWD-level financial program plans and budgets maintained on a NAWCWD wide data base for centralized financial planning, budgeting and reporting. These functions include Defense Business Operations Fund (DBOF) A-11 and operating Budgets, Stabilized and Non-Stabilized Billing Rates to all NAWCWD customer programs, Civilian Manpower Budget, Information Technology (IT) Budget, Capital Purchases Program (CPP), and Financial Issue and Point papers. Approximately twenty-four NAWCWD personnel support the Corporate Budget function.

Without upgrading the matured DOS and Macintosh based computers, file servers, computer peripherals, software and data bases, NAWCWD Corporate Budget will be unable to maintain its ability to facilitate these programs and respond in a timely manner to internal and external special reporting. Current computer systems have inadequate memory capacity and cannot support current sofware applications. With its Computer resources limited and its human resources downsized, Corporate Budget may be left in a position where it will be unable to comply with the ever-increasing difficult and expanding requirements. Without the computer equipment upgrades, Corporate Budget will have limited ability to provide timely, accurate quality reports.

COST BENEFIT ANALYSIS HAS BEEN PERFORMED WITH:

Payback Period = 4.8 years
Return on Investment (ROI) = 21%
Average Annual Savings = $43K beginning in FY96

000457

CAPITAL PURCHASES JUSTIFICATION
(Dollars in Thousands)

A. FY 1996/1997 BIENNIAL BUDGET

B. Department of the Navy/Research & Development

C. EDMICS REPLACEMENT (MANDATED) LINE # WP6KL4002R

D. NAWC-WD

Element of Cost	FY 1993 Qty	FY 1993 Unit Cost	FY 1993 Total Cost	FY 1994 Qty	FY 1994 Unit Cost	FY 1994 Total Cost	FY 1995 Qty	FY 1995 Unit Cost	FY 1995 Total Cost	FY 1996 Qty	FY 1996 Unit Cost	FY 1996 Total Cost	FY 1997 Qty	FY 1997 Unit Cost	FY 1997 Total Cost
EDMICS Equipment										1	2,925	2,925			
TOTAL											2,925	2,925			

Narrative Justification:
OPERATIONAL DATE: October 1997

DESCRIPTION: In September of 1985, the Secretary of the Navy introduced a strategy for developing an electronic acquisition and logistics infrastructure for the future. Computer-Aided Acquisition and Logistics Support (CALS) encompasses many advancements already used in industry. The Engineering Data Management Information and Control System (EDMICS) is one of the CALS modules. EDMICS is a digital system to automate engineering repositories. It will provide electronic capture, interchange, and distribution of engineering data and information about that data. EDMICS will support the acquisition, storage, retrieval, and dissemination of logistics technical information in digital form for major weapons systems. The need for EDMICS is driven by several factors: (a) the need to improve the management of technical information; (b) the increased accuracy, timeliness, and use of logistics technical information; (c) the increased emphasis on competitive acquisition of spare parts; (d) the growing quantity of engineering drawings as a result of the development of highly complex weapon systems and equipment; and (e) the availability of new technology for high volume storage and retrieval of digital data for all new weapons systems to be delivered by the contractor to the Department of the Navy in digital form. The objective of EDMICS is to meet the demand for engineering data through greater efficiency while significantly improving response time for both logistics and procurement support.

EDMICS will support Navy air launched weapons systems. NAWCWD performs procurement and logistics support for these weapons.

COST BENEFIT ANALYSIS HAS BEEN PERFORMED WITH:

Payback period = 1.7 years
Return on Investment (ROI) = 52%
Average Annual Savings = $1,516K

0004458

CAPITAL PURCHASES JUSTIFICATION
(Dollars in Thousands)

A. FY 1996/1997 BIENNIAL BUDGET

B. Department of the Navy/Research & Development

C. JCALS Suites Replacement
LINE # AI6KL7203R

D. NAWC-AD

	FY 1993			FY 1994			FY 1995			FY 1996			FY 1997		
Element of Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost
JCALS Suites										1	2,775	2,775			
TOTAL												2,775			

Narrative Justification:
OPERATIONAL DATE: January 1998

Joint Continuous Acquisition and Life-Cycle Support (JCALS) is a DOD wide information system aimed at creating a digital environment which will support acquisition and logistics functional requirements, thus enabling streamlined life cycle management of weapons systems. Logistics support analysis automation, engineering automation, acquisition, procurement, and technical manual automation are the primary goals of JCALS.

The current work processing methods are very slow and cumbersome and create excess paper. In addition, NAWCAD Indianapolis must re-input data received from other facilities due to non-compatibility.

Currently approximately 20,668 labor hours are spent annually managing and publishing documents. More than $75,000 are spent each year on material storage and related fees.

If the JCALS is procured, the existing manual, and outdated methods will be replaced with automated ones. This will produce a labor savings of approximately 25% in the development of technical manuals alone. Savings are calculated against the estimated labor hours to complete engineering data packages and technical manuals using current methods versus automated methods if JCALS is procured. Since JCALS is a DOD wide project, all data received from other facilities will be compatible with our own systems and will not be required to be re-input.

COST BENEFIT ANALYSIS HAS BEEN PERFORMED WITH:

Payback Period = 2.3 year
Return on Investment (ROI) = 38%
Average Annual Savings = $1,059K

ECONOMIC ANALYSIS IMPACT:
JCALS is a DOD wide information support system and if it is not procured, NAWCAD Indianapolis will not be compatible within the DOD. Data received from other facilities will continue to be re-input in order for the data package to be utilized in the design/engineering process.

000459

CAPITAL PURCHASES JUSTIFICATION
(Dollars in Thousands)

A. FY 1996/1997 BIENNIAL BUDGET

B. Department of the Navy/Research & Development

C. CAD II REPLACEMENT (MANDATED)
LINE # WP6KL4000R

D. NAWC-WD

Element of Cost	FY 1993 Qty	FY 1993 Unit Cost	FY 1993 Total Cost	FY 1994 Qty	FY 1994 Unit Cost	FY 1994 Total Cost	FY 1995 Qty	FY 1995 Unit Cost	FY 1995 Total Cost	FY 1996 Qty	FY 1996 Unit Cost	FY 1996 Total Cost	FY 1997 Qty	FY 1997 Unit Cost	FY 1997 Total Cost
CAD II Computer System										1	1,335	1,335			
Installation										1	75	75			
TOTAL												1,410			

Narrative Justification:
OPERATIONAL DATE: October 1997

DESCRIPTION: Computer Aided Design (CAD) II uses microcomputer technology to automate the engineering design weapon system development process. Objectives of CAD II include: (a) improve reliability and supportability of weapon systems by the application of computer-aided technologies during weapon system development; (b) improve the quality and timeliness of logistics support; (c) automate the development, maintenance, and distribution of logistics support products; and (d) reduce the quantity of technical paperwork needed to develop, acquire, support, and maintain weapon systems.

Implementation of the CAD II contract will result in more efficient procurement of spares, more efficient maintenance of operating systems, and more effective logistics planning and management of weapons systems.

CAD II will support Air-to-Air and Air-to-Ground missile systems, conventional ordnance, suspension and release systems. Failure to implement CAD II will result in the degradation of weapon system procurement, logistics support, and maintenance support for Navy weapons. Fleet readiness will also be negatively impacted.

NAWCWD will be unable to comply with the DoD mandate and will require increased manpower and funding to fulfill its mission on assigned weapon systems. Logistics documentation will be handled in a less efficient manner. Fleet support will be inadequate.

COST BENEFIT ANALYSIS HAS BEEN PERFORMED WITH:

Payback Period = 0.3 years
Return on Investment (ROI) = 222%
Internal Rate of Return = 257%
Average Annual Savings = $3,132K

000460

CAPITAL PURCHASES JUSTIFICATION
(Dollars in Thousands)

A. FY 1996/1997 BIENNIAL BUDGET

B. Department of the Navy/Research & Development

C. MODULE INTEG TECH MANUALS/PUBS REPLACEMENT (MANDATED)
LINE # WP6KL4001R

D. NAWC-WD

	FY 1993			FY 1994			FY 1995			FY 1996			FY 1997		
Element of Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost
Module Integrated Electronic Technical Manuals/Publications										1	1,045	1,045			
TOTAL												1,045			

Narrative Justification:
OPERATIONAL DATE: October 1997

DESCRIPTION: The Computer Aided Modules are required to comply with the DoD mandated strategy to effect the transition from the current paper intensive design, manufacturing, and support processes to a highly automated, integrated mode of operation. CALS focus is on the automation of weapon system technical information over the system life cycle. This includes part descriptions, specifications, and standards that the initial designer references; the engineering drawings and product data used in design and manufacture; the information needed to guide people who operate the system in the field or who support and maintain it at all levels of the logistics support structure; the materials needed to train new operators/maintainers; and the information needed for reprocurement, manufacturing, modification, and feedback to industry for future designs.

There are three major modules, the Digital Technical Manuals/Publications module is the third module of Computer Aided Logistics System. The schedule for implementing the CALS system has slipped more than three years. The contractors are delivering data packages and technical manuals that meet the CALS requirements . To access this data a system was purchased in FY92 to read the CALS electronic information. However, the complete system is required to be able to access the data base and maintain the data.

This purchase will provide increased efficiency in the procurement of spare parts, increased efficiency in maintenance of operating systems, and more effective logistics planning. The lack of digital electronic manual and drawing review and publishing will decrease reliability and accuracy of information.

COST BENEFIT ANALYSIS HAS BEEN PERFORMED WITH:

Payback Period = 4.6 years
Return on Investment(ROI) = 21%
Average Annual Savings = $222K

CAPITAL PURCHASES JUSTIFICATION
(Dollars in Thousands)

A. FY 1996/1997 BIENNIAL BUDGET

B. Department of the Navy/Research & Development

C. Gould RSX Computer/Interface Replacement
LINE #AX6KL0050R

D. NAWC-AD

Element of Cost	FY 1993 Qty	FY 1993 Unit Cost	FY 1993 Total Cost	FY 1994 Qty	FY 1994 Unit Cost	FY 1994 Total Cost	FY 1995 Qty	FY 1995 Unit Cost	FY 1995 Total Cost	FY 1996 Qty	FY 1996 Unit Cost	FY 1996 Total Cost	FY 1997 Qty	FY 1997 Unit Cost	FY 1997 Total Cost
Gould RSX Computer/Interface										1	500	500			
TOTAL											500	500			

Narrative Justification:

The ENCORE RSX Computer will be used as the application processor at the Landing System Test Facility (LSTF) to provide the necessary processing capability to handle a large volume of instrumentation parameters from various sources at high data rates. This system provides the best interface with the present RTPS III system without breaking down the commonality link between the RTPS and LSTF-systems, and provides a cost effective long range upgrade for future applications. This system is basically a replacement and applications enhancement of the time shared applications capability presently performed on the LSTF GOULD 32/67 display host processor.

COST BENEFIT ANALYSIS HAS BEEN PERFORMED WITH:
Return on Investment (ROI): 5%
Average Annual Savings: $27K

ECONOMIC ANALYSIS IMPACT:

Without this capital investment to provide applications, the LSTF will be severely limited as to the number of parameters and data rates which it can handle during landing system and aircraft program evaluations. This will require tests and analysis to be performed the old way by flying numerous times and then conducting post data analysis with large delays and repeat of unnecessary flights. Development of analysis software will be by individual test programs and common usage of application and analysis programs will be lost. Large expenditures of funds will be made to develop and conduct the same type of analysis on the individual programs.

The replacement of the existing computer will increase the capability of the LSTF to process a larger number of aircraft/landing system parameters at high data rates that is required for the future programs. This will improve the efficiency and effectiveness of the facility and its output to test/analyze data.

The new program initiatives of the SMATCALS, F18E/F ASTOVAL, and JAST projects will require an increase in the ability to integrate and conduct real time analysis of a large number of air and ground based parameters.

000462

CAPITAL PURCHASES JUSTIFICATION
(Dollars in Thousands)

A. FY 1996/1997 BIENNIAL BUDGET

B. Department of the Navy/Research & Development

C. LAN and Computer-Aided Acquisition & Logistics Replacement
LINE # AX6KL0017R

D. NAWC-AD

	FY 1993			FY 1994			FY 1995			FY 1996			FY 1997		
Element of Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost
LAN and Computer-Aided Acquisition & Logistics										1	407	407	1	165	165
TOTAL												407			165

Narrative Justification:
Operational Date: July 1996

Replacement of existing hardware and software for intraoffice network to accommodate the basewide change from 3Com network operation system to Windows NT Advanced with Microsoft Mail Solution and for compatibility with NAWCAD Lakehurst Macintosh system (site of competency level management). Additionally, it will provide Computer-aided Acquisition and Logistics Support (CALS) workstations with supporting software for three Patuxent River engineering/logistics sites (i.e. Propulsion, Platform Group, and Avionics Lab). CALS is a DOD initiative intended to improve acquisition and logistics functional processes relating to technical information. This capital investment will allow interface and use of digitized technical data delivered as a part of an acquisition contract. The competency area will use the system in the conduct of its TECHEVAL effort to assess the adequacy, accuracy, and completeness of technical documentation intended to support the equipment acquired.

This competency area will be compatible with the NAWCAD Patuxent site and with competency area management at NAWCAD Lakehurst; it will have intraoffice software compatibility and obtain the capability to stay current with the investment of network software vice individual workstation software; and it will have internal data communication and transfer capability between all its personnel located in three physically separated worksites in four buildings. The CALS workstations will allow for a smooth and timely transition in the establishment of CALS capability necessary to support future mission requirements in the conduct of TECHEVAL.

COST BENEFIT ANALYSIS HAS BEEN PERFORMED WITH:
Payback Period: 1.9 years
Return on Investment: 46%
Average Annual Savings: $187K

000463

CAPITAL PURCHASES JUSTIFICATION
(Dollars in Thousands)

A. FY 1996/1997 BIENNIAL BUDGET

B. Department of the Navy/Research & Development

C. LAN and Computer-Aided Acquisition & Logistics (PAGE 2)
Replacement
LINE # AX6KL0017R

D. NAWC

	FY 1993			FY 1994			FY 1995			FY 1996			FY 1997		
Element of Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost
LAN and Computer-Aided Acquisition & Logistics															
TOTAL		--------	--------		--------	--------		--------	--------		--------	--------		--------	-------

Economic Analysis Impact:

As the NAWCAD Patuxent site converts to Windows NT Advanced with Microsoft Mail Solution, all equipment connected to the 3 Com operating systems will be rendered unusable. Personal computers/printers will not be usable because they do not have standalone software. The network software that is available will be unacceptable because 3Com name service is no longer available. This competency area will no longer be capable of updating workload or financial information; process TECHEVAL Rapid Action Deficiency Reports, TECHEVAL Interim, Preliminary and Final reports; update training and travel information; or accomplish intraoffice electronic communication. Lack of electronic compatibility with the competency management will cause inefficiency. A significant investment already made in automation will be negated by the lack of funding for conversion and updating. Since future technical data will be delivered in digitized form (no papar copies), this competency area will be unable to perform TECHEVAL on programs for which CALS requirements have been contractually implemented unless CALS workstations are acquired.

000464

CAPITAL PURCHASES JUSTIFICATION
(Dollars in Thousands)

A. FY 1996/1997 BIENNIAL BUDGET

B. Department of the Navy/Research & Development

C. Visual Display Test and Simulation Sys Replacement
LINE # AX6KL0013R

D. NAWC-AD

	FY 1993			FY 1994			FY 1995			FY 1996			FY 1997		
Element of Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost
Visual Display Test and Simulation System										1	380	380			
TOTAL											380	380			

Narrative Justification:
Operational Date: April 1996

This procurement is an advanced graphics engineering workstation, with hardware and software, designed to support high speed video generation of flight scenes (terrain) and simulations for interactive man-in-the-loop testing of helmet mounted and other advance display devices for tactical aircraft. It applies to the full range of topics referred to as virtual reality. It will enable us to drive display equipment in the Crewstation Technology Laboratory (CTL) at the full speed and update and refresh rates required by modern test methods which cannot be supported with current equipment. Test methods for helmet mounted displays are used in engineering development for naval aircraft of all types and also in training issues, distributed simulation, tactics development, and all types of human performance assessment in full or part mission simulation. Components include an SGI Onyx II RE computer, workstation, and terrain software.

The current system will only run rudimentary simulations and will never reach the level necessary to accomplish required goals. The new system is needed in order to be able to update computer/video generated flight scenes expediently to meet man-in-the-loop testing requirements. The visual display test and simulation system is a proven commercial product compatible with current equipment and networked simulations. It has growth potential for new applications and for a long useful life.

The upgrading of equipment and the availability of modern analysis tools and techniques provides an environment for excellence in accomplishing crew system simulations and visual display system T&E.

COST BENEFIT ANALYSIS HAS BEEN PERFORMED WITH:

Payback Period: 6.4 years
Return on Investment: 17%
Averge Annual Savings: $64K

Economic Analysis Impact:

Planning for continuous improvement is critical. Expanding this engineering environment to include additional features and capabilities will permit enhanced accomplishment of aircrew systems RDT&E tasks. If this procurement is not made, project delays and degraded project results will occur. The current system is old and incapable of meeting sponsor's interactive man-in-the-loop testing needs for helmet mounted visual displays/targeting systems. The new system is desparately needed to meet program requirements.

000465

CAPITAL PURCHASES JUSTIFICATION
(Dollars in Thousands)

A. FY 1996/1997 BIENNIAL BUDGET

B. Department of the Navy/Research & Development

C. VTC UPGRADES REPLACEMENT
LINE # WP6TL5004R

D. NAWC-WD

Element of Cost	FY 1993 Qty	FY 1993 Unit Cost	FY 1993 Total Cost	FY 1994 Qty	FY 1994 Unit Cost	FY 1994 Total Cost	FY 1995 Qty	FY 1995 Unit Cost	FY 1995 Total Cost	FY 1996 Qty	FY 1996 Unit Cost	FY 1996 Total Cost	FY 1997 Qty	FY 1997 Unit Cost	FY 1997 Total Cost
Equipment										1	320	320	1	75	75
Software															
Installation										1	50	50			
Other															
TOTAL												370			75

Narrative Justification:
OPERATIONAL DATE: April 1996

DESCRIPTION: Since 1988, Pt. Mugu has documented Video Teleconferencing (VTC) cost savings by improved productivity and travel avoidance. This upgrade includes cameras, monitors, video compression equipment, and new network/operations connections to anticipated remote customers at Pt. Mugu sites. Additional requirements are to enhance the operational capability of the High Resolution Graphics System. High resolution graphics provide the ability to scan, transmit, display and store text and complicated graphics; to interact with other users; and to produce high quality printed output. This capability represents a long standing general requirement for Navy VTC installations.

Upgrade of this equipment is now due and would allow use of existing equipment as spares to lower maintenance support cost in the future. With decreasing travel and downsizing of personnel resources, modernization and expanded interface connectivity of the Pt. Mugu VTC is required to accommodate increasing demand for this facility to accomplish the Pt. Mugu Navy Mission in National Defense. The VTC is essentially 100% utilized at present, and an additional portable VTC facility is already planned to help support current overflow requirements. Increased laboratory and operational connectivity (anticipated in FY94-95) will potentially double VTC demand in support of test/evaluation/training on Navy weapons development, improvement and production programs.

COST BENEFIT ANALYSIS HAS BEEN PERFORMED WITH:

Payback Period = 1.8 years
Return on Investment (ROI) = 48%
Internal Rate of Return = 42%
Average Annual Savings = $212K

000466

CAPITAL PURCHASES JUSTIFICATION
(Dollars in Thousands)

A. FY 1996/1997 BIENNIAL BUDGET

B. Department of the Navy/Research & Development

C. Signal Processing Workstation REPLACEMENT
LINE # AW6KL5304R

D. NAWC-AD

Element of Cost	FY 1993 Qty	FY 1993 Unit Cost	FY 1993 Total Cost	FY 1994 Qty	FY 1994 Unit Cost	FY 1994 Total Cost	FY 1995 Qty	FY 1995 Unit Cost	FY 1995 Total Cost	FY 1996 Qty	FY 1996 Unit Cost	FY 1996 Total Cost	FY 1997 Qty	FY 1997 Unit Cost	FY 1997 Total Cost
Signal Processing Workstation										1	350	350			
TOTAL											350	350			

Narrative Justification:
OPERATIONAL DATE: January 1996

A self-contained roll-on/roll-off acoustic operator's workstation suitable for use on P-3 aircraft. The system will be ruggedized and be flight certified. It shall make maximum use of Commercial-Off-The-Shelf (COTS) technology and shall be easily programmable in a high order language to enable rapid prototyping of next generation signal processing algorithms. Major system components shall consist of the Signal Processing Computer, Display, and Operator Interface.

COST BENEFIT ANALYSIS HAS BEEN PERFORMED WITH:

Payback Period = 1.9 years
Return on Investment (ROI) = 46%
Average Annual Savings = $161K

Economic Analysis Impact:

If this system is not purchased this fiscal year, we will be unable to investigate prototype and experimental signal processing techniques, which would adversely affect current and future projects.

000467

CAPITAL PURCHASES JUSTIFICATION
(Dollars in Thousands)

A. FY 1996/1997 BIENNIAL BUDGET

B. Department of the Navy/Research & Development

C. Sun Lab Network REPLACEMENT

LINE # AL6KL0002R

D. NAWC-AD

Element of Cost	FY 1993 Qty	FY 1993 Unit Cost	FY 1993 Total Cost	FY 1994 Qty	FY 1994 Unit Cost	FY 1994 Total Cost	FY 1995 Qty	FY 1995 Unit Cost	FY 1995 Total Cost	FY 1996 Qty	FY 1996 Unit Cost	FY 1996 Total Cost	FY 1997 Qty	FY 1997 Unit Cost	FY 1997 Total Cost
Sun Lab Network										1	290	290			
TOTAL											290	290			

Narrative Justification:
OPERATIONAL DATE: December 1996

The system will feature the integration of other advanced engineering information systems, such as silicon graphics for high speed performance graphical modeling and simulation applications to enhance their run time and throughput. It will also feature networking via the existing LAN which will provide engineers the capability to use engineering software packages from their own office spaces. Remote workstations provide high performance, high speed software operations in a laboratory environment.

Engineers currently use either personal computers or Sun workstations for software development in several R&D efforts. These efforts include finite element analysis, fuzzy logic for image processing, lab applications, test and supportability analysis, expert systems and artificial intelligence, and neural networks. The labor hours per engineer will be reduced to allow them more time for development of engineering applications and overall support of the NAWCAD Lakehurst mission.

COST BENEFIT ANALYSIS HAS BEEN PERFORMED WITH:
Payback Period = 1.9 year
Return on Investment (ROI) = 46%
Average Annual Savings = $134K

Economic Analysis Impact:

NAWCAD Lakehurst's ability to meet in-house software development requirements depends on replacing and upgrading the current capabilities in the R&D area.

000468

CAPITAL PURCHASES JUSTIFICATION
(Dollars in Thousands)

A. FY 1996/1997 BIENNIAL BUDGET

B. Department of the Navy/Research & Development

C. CONTINUING TECH. ADVANCEMENT PHASE II REPLACEMENT
LINE # WC5KL0509R

D. NAWC-WD

	FY 1993			FY 1994			FY 1995			FY 1996			FY 1997		
Element of Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost
Hardware										1	250	250			
Software															
Installation															
Other															
TOTAL											250	250			

Narrative Justification:
OPERATIONAL DATE: October 1996

DESCRIPTION: This procurement is to replace/upgrade obsolete equipment in the Procurement Department. By the end of the first quarter of fiscal year 1994, the workstation hardware currently owned by the Procurement department will be at least two processor levels behind the current state-of-the-art workstation equipment. In procuring these workstation upgrades, we will have up-to-date equipment which will be faster, more reliable units with more storage capacity and memory.

The majority of equipment that the Procurement Department currently owns was purchased by NAVSUP for use with the Automation of Procurement and Data Entry (APADE). Given the state of the NAVSUP budget, it is highly unlikely that they would offer any more equipment in the near future. With shrinking overhead budgets, upgrades of the current equipment are not possible with in-house funding. The Procurement Department is trying to accomplish more work with less people, but if the department is forced to use outdated equipment, productivity will decrease and eventually, down time for workstation maintenance will increase to disproportionate levels.

COST BENEFIT ANALYSIS HAS BEEN PERFORMED WITH:

Payback Period = 4 years
Return on Investment (ROI) = 24%
Average Annual Savings = $120K beginning in FY96

000469

CAPITAL PURCHASES JUSTIFICATION
(Dollars in Thousands)

A. FY 1996/1997 BIENNIAL BUDGET

B. Department of the Navy/Research & Development

C. AAP-400 Processor REPLACEMENT
LINE # AW6KL5405R

D. NAWC-AD

	FY 1993			FY 1994			FY 1995			FY 1996			FY 1997		
Element of Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost
AAP-400 Processor										1	250	250			
TOTAL												250			

Narrative Justification:
OPERATIONAL DATE: July 1996

The AAP-400 is an interactive roll-on-roll-off active sonar received and display system used for Multi-Static Active (MSA) sonar processing and display. The AAP-400 provides operator controllable audio and visual displays to enable the system operator to quickly and effectively analyze data from up to 32 sensors simultaneously. The present method of analyzing active sonar data is very labor and time intensive. Military equipment is very specialized and does not lend itself to scientific investigations. Also, the current capability for multi-sensor evaluations is limited.

Use of the AAP-400 System will reduce labor rates by a factor of four by effective utilization of this hardware. This unit will replace the Data General MV-15000 computer currently in use at the NAWCAD.

COST BENEFIT ANALYSIS HAS BEEN PERFORMED WITH:

Payback Period = 3 years
Return on Investment (ROI) = 30%
Average Annual Savings = $106K

Economic Analysis Impact:

If this procurement is not made, data analysis will be inefficiently handled. Less capable and slower analysis tools will have to be utilized to meet sponsor needs.

000470

CAPITAL PURCHASES JUSTIFICATION
(Dollars in Thousands)

A. FY 1996/1997 BIENNIAL BUDGET

B. Department of the Navy/Research & Development

C. Systems Engr. Facility Update
REPLACEMENT
LINE # AW6KL1201R

D. NAWC-AD

	FY 1993			FY 1994			FY 1995			FY 1996			FY 1997		
Element of Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost
Systems Engr. Facility Update										1	250	250			
TOTAL												250			

Narrative Justification:
OPERATIONAL DATE: September 1996

The Vertical Flight Systems Engineering Facility Upgrade will be comprised of a set of hardware and software that will enable the facility to be up to date with the current technological environment. As new advances in the software field emerges, the current equipment can no longer operate at an efficient level due to speed requirements and/or storage requirements of the new software. It is therefore necessary to update the hardware. The hardware will be state-of-the-art workstation systems that will be capable of executing the systems engineering and analysis tools of that time period. The hardware will also be able to transfer data and communicate with other networked workstations at the normal data transfer rates. The new software will be the latest advances in software engineering, and systems engineering and analysis tools. These software products will enable the cognizant engineer to be at a productivity level that maintains the competitive edge in the engineering arena at NAWCAD.

COST BENEFIT ANALYSIS HAS BEEN PERFORMED WITH:

Payback Period = 3 years
Return on Investment (ROI) = 30%
Average Annual Savings = $76K

Economic Analysis Impact:

Failure to obtain the Vertical Flight Systems Engineering facility Upgrade will allow other agencies and contractors to overtake our capabilities. This would destroy the competitive edge and the engineers involved would no longer be up to date with the techniques, methodologies, and tools of their profession.

000271

CAPITAL PURCHASES JUSTIFICATION
(Dollars in Millions)

A. FY 1996/1997 BIENNIAL BUDGET

B. Department of the Navy/Research & Development

C. H-3 and Variants Simulation System REPLACEMENT
LINE # AW6KL1202R

D. NAWC-AD

Element of Cost	FY 1994 Qty	FY 1994 Unit Cost	FY 1994 Total Cost	FY 1995 Qty	FY 1995 Unit Cost	FY 1995 Total Cost	FY 1996 Qty	FY 1996 Unit Cost	FY 1996 Total Cost	FY 1997 Qty	FY 1997 Unit Cost	FY 1997 Total Cost
H-3 and Variants Simulation System							1	250	250			
		-------	-------		-------	-------		---------	-------		-------	-------
								250	250			

Narrative Justification:
Operational Date: June 1996

Justification: The H-3 and Variants simulation system phase II consists of additional mini- and micro-computer based hardware required to execute system modeling and system engineering and analysis, software in a life cycle support capacity for the H-3 helicopters and variants platforms. The H-3 variants consists of various Foreign Military Sales (FMS) versions of the aircraft. The H-3 and variants simulation system is an add-on capability for the Vertical Flight Division and is critical for obtaining future funding for performing systems integration and testing of the H-3 FMS variants and assoicated avionic subsystems. Other qualitative justifications exists because the procurement of this hardware and software expands NAWC potential for obtaining future work for the H-3.

Estimated Payback Period = 2 years
Estimated ROI = 43%
Average Annual Savings = $108K

IMPACT STATEMENT: Failure to purchase this equipment would jeopardize the capability of NAWC to adequately perform future work for the H-3 and FMS program offices.

000472

CAPITAL PURCHASES JUSTIFICATION
(Dollars in Thousands)

A. FY 1996/1997 BIENNIAL BUDGET

B. Department of the Navy/Research & Development

C. Client Server Sparc System
REPLACEMENT
LINE # AW6KL5306R

D. NAWC-AD

	FY 1993			FY 1994			FY 1995			FY 1996			FY 1997		
Element of Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost
Client Server Sparc System										1	211	211			
TOTAL												211			

Narrative Justification:
OPERATIONAL DATE: January 1996

This system consists of one Sparcserver and three client workstations. The server is a Sparcsystem 1000 with four 50 MHZ Supersparc processors expandable to eight processors. Each client is a Sparcstation 10 with one 50 MHZ Supersparc processor (expandable to four processors), and a color monitor. Also included in the system is 8 GBytes of mass storage, tape backups, a laser printer, and a color printer. The workstations include accelerated graphics and 16 bit stereo analog-to-digital (A/D), and will be used for sonar data visualization and detection/classification algorithm development. Software will include development tools and math/signal processing packages.

COST BENEFIT ANALYSIS HAS BEEN PERFORMED WITH:

Payback Period = 1.1 years
Return on Investment (ROI) = 77%
Average Annual Savings = $161K

Economic Analysis Impact:

If these systems are not purchased in this fiscal year, delivery schedules on the development of signal processing algorithms and data processing for sponsors will be adversely affected.

000473

CAPITAL PURCHASES JUSTIFICATION
(Dollars in Thousands)

A. FY 1996/1997 BIENNIAL BUDGET

B. Department of the Navy/Research & Development

C. GEOGRAPHIC INFORMATION SYSTEM REPLACEMENT
LINE # WC5KL0517R

D. NAWC-WD

Element of Cost	FY 1993 Qty	FY 1993 Unit Cost	FY 1993 Total Cost	FY 1994 Qty	FY 1994 Unit Cost	FY 1994 Total Cost	FY 1995 Qty	FY 1995 Unit Cost	FY 1995 Total Cost	FY 1996 Qty	FY 1996 Unit Cost	FY 1996 Total Cost	FY 1997 Qty	FY 1997 Unit Cost	FY 1997 Total Cost
Hardware										1	65	65	1	212	212
Software										1	82	82			
Installation															
Other										1	59	59			
TOTAL											206	206		212	212

Narrative Justification:
OPERATIONAL DATE: September 1995

DESCRIPTION: This is an archival/retrieval system that focuses on relating facilities/real property textual data to mapping and design graphical data. Various databases will be incorporated into the GIS including mapping, utilities, real estate, capital improvements, and environmental data. The Geographic Information System (GIS) will be compatible with Tri-Service Computer Aided Digital Design (CADD)/GIS technology. The system will allow for the transfer of spatial data between all Departments within the Tri-Service community as well as the adjacent local, state and federal agencies.

This system allows comprehensive planning (master planning); real estate management; hazardous waste management; natural and cultural resources management and other environmental program management; utilities management; training and testing operations; land and air space use compatibility; and installation restoration/closure.

Disapproval of this request will have an initial detrimental impact on Public Works and the Environmental Project Office who will be the prime users of the initial phases of the GIS system. Disapproval will also have a negative effect on other potential users throughout the Station. As the expanded capabilities of the system are implemented, more impact will take place because the present system is antiquated and time consuming to use.

COST BENEFIT ANALYSIS HAS BEEN PERFORMED WITH:

Payback Period = 1.4 years
Return on Investment (ROI) = 63%
Internal Rate of Return = 62%
Average Annual Savings = $390K beginning in FY96

000474

CAPITAL PURCHASES JUSTIFICATION
(Dollars in Thousands)

A. FY 1996/1997 BIENNIAL BUDGET

B. Department of the Navy/Research & Development

C. Visual System Upgrade REPLACEMENT
LINE # AW6KL6506R

D. NAWC-AD

	FY 1993			FY 1994			FY 1995			FY 1996			FY 1997		
Element of Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost
Visual System Upgrade										1	200	200			
TOTAL											200	200			

Narrative Justification:
OPERATIONAL DATE: August 1996

The new visual system for the Flight Dynamics Computer Lab (FDCL) would include a Silicon Graphics Crimson Computer, operating system, additional memory and peripherals, VisionWorks Database,and 3 monitors. This system upgrade will provide a wider field of view, with increased visual cueing capability to more effectively conduct pilot simulations. The current visual graphics system is outdated, in need of repair, and very limited in scope. The new system contains state-of-the-art computers with the necessary memory, input/output capabilities and software to provide the necessary outside world visual cues to conduct effective piloted simulations in the FDCL. The FDCL is an inexpensive, quick-response, medium fidelity engineering simulator to conduct research, develop test module, and refine test matrices before transitioning to an expensive, high-fidelity simulator, if required.

The Flight Dynamics and Controls Branch has had very strong indications from its customers that a significant increase in rotorcraft flying qualities and controls support will be required in the future. The existing visual system, which is ten years old, has become obsolete and must be replaced if the branch and the FDCL are to continue to support this increasing rotorcraft work being requested by its customers.

COST BENEFIT ANALYSIS HAS BEEN PERFORMED WITH:

Payback Period = 3 years
Return on Investment (ROI) = 30%
Average Annual Savings = $61K

Economic Analysis Impact:

Without this improved visual display capability, the Flight Dynamics Computer Lab (FDCL) would be severely limited in supporting rotorcraft efforts required by its customers. This would result in significantly higher cost to those programs requiring simulation since a more expensive, higher fidelity facility would have to be used, even if the higher fidelity was not required.

000475

CAPITAL PURCHASES JUSTIFICATION
(Dollars in Thousands)

A. FY 1996/1997 BIENNIAL BUDGET

B. Department of the Navy/Research & Development

C. Advanced Capability Arithmetic Processor REPLACEMENT
LINE # AW6KL7908R

D. NAWC-AD

	FY 1993			FY 1994			FY 1995			FY 1996			FY 1997		
Element of Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost
Advanced Capability Arithmetic Processor										1	200	200			
TOTAL												200			

Narrative Justification:
OPERATIONAL DATE: May 1996

The Advanced Capability Arithmetic Processor is a state of the art, commercial off-the-shelf (COTS) signal processor system. It will be used to evaluate new techniques, both hardware and software, with the goal being to integrate these new technologies into our present and future signal processors. The exact components and configuration of this system varies widely, depending on what type of system and which vendor supplies it. Because of the continuing advances being made in this area, the research into the type and vendor of the system is ongoing and will continue until the selection is made, immediately prior to purchase.

The state of the art in signal processing is advancing both in the software and hardware area. To stay current in this rapidly progressing technology area, we need to move forward with it. A commercial state of the art unit will enable us to evaluae these new technologies and incorporate parts of it into existing signal processing systems. Purchasing a COTS unit will result in a 25% savings over the present methods.

COST BENEFIT ANALYSIS HAS BEEN PERFORMED WITH:
Payback Period = 3.5 years
Return on Investment (ROI) = 27%
Average Annual Savings = $53K

Economic Analysis Impact:

The present UYS/2 was originally conceived in the early 1980's. While continual product improvements and enhancements are taking place, new technological advancements dictate that it will be obsolete in a short number of years. But the modularity of the system make it possible to totally replace parts of the machine, provided the technology can be proven by some means. The equipment will support the UYS/2 project, and thus indirectly other projects which employ UYS/2 as part of their architecture. If this equipment is not purchased in FY96 it will lessen the ability of NAWCAD to properly support the UYS/2 project line as the sponsor expects.

92-7000

CAPITAL PURCHASES JUSTIFICATION
(Dollars in Millions)

A. FY 1994/1995 BIENNIAL BUDGET

B. Department of the Navy/Research & Development

C. Mini Crew Station REPLACEMENT
LINE # AX6KL0085R

D. NAWC-AD

Element of Cost	FY 1994			FY 1995			FY 1996			FY 1997		
	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost
Mini Crew Station							1	200	200			
		-------	-------		-------	-------		--------	-------		-------	------
								200	200			

Narrative Justification:
OPERATIONAL DATE: January 1996

JUSTIFICATION: This submission is for a planned two year effort at $200K per year for four Mini Crew Stations. The test facility will have four major components which consist of Flight Control Computer Test Stations, computational resources, flight control computer interfaces, and piloted simulation stations. The Mini Crew Station flight simulators consist of operator controls, heads up and heads down displays, image generator, and aerodynamic model processors.

COST BENEFIT ANALYSIS HAS BEEN PERFORMED WITH:
Payback Period = 1 year
Estimated ROI = 119%
Average Annual Savings = $475K

ECONOMIC ANALYSIS IMPACT:

The development of these capabilities are required to allow the test and evaluation of new technology systems in the laboratory under controlled environmental conditions which, if performed during aircraft flight, could be hazardous, limited in scope, and subject to unpredictable atmospheric conditions. If this project is deferred it would force the test and evaluation of new technology systems not to be conducted or, if conducted, it would only partially evaluate the operational capabilities of these systems. The tests that cannot be performed on the ground will have to be performed in a high risk, high cost flight test evaluation. The ability to accurately interface with the digital flight control system and control simulated aircraft conditions allows for precise replication of flight conditions which will reduce risk to the aircrew. Working under the current laboratory limitations, the total system capabilities cannot be fully exercised and a complete evaluation of the resulting system performance cannot be assessed until actual flight tests.

000427

CAPITAL PURCHASES JUSTIFICATION
(Dollars in Thousands)

A. FY 1996/1997 BIENNIAL BUDGET

B. Department of the Navy/Research & Development

C. CONNECTIVITY/HR LAN REPLACEMENT
LINE # WP6TL5005R

D. NAWC-WD

Element of Cost	FY 1993 Qty	FY 1993 Unit Cost	FY 1993 Total Cost	FY 1994 Qty	FY 1994 Unit Cost	FY 1994 Total Cost	FY 1995 Qty	FY 1995 Unit Cost	FY 1995 Total Cost	FY 1996 Qty	FY 1996 Unit Cost	FY 1996 Total Cost	FY 1997 Qty	FY 1997 Unit Cost	FY 1997 Total Cost
Equipment										1	103	103	1	77	77
Software										1	54	54			
Installation										1	20	20			
Other															
TOTAL												177			77

Narrative Justification:
OPERATIONAL DATE: March 1996

DESCRIPTION: This procurement is for network servers, bridges and routers, communications servers, and communications software and protocols. As a service department supporting all manpower and all civilian personnel functions, with primary offices located at Pt. Mugu and China Lake, it is imperative to provide the ability to expand communication and to transmit resource information to the Codes at both sites. It is our on-going plan to standardize equipment and software throughout the department to allow for more accurate and timely information processing and sharing, increase productivity, and reduce the cost of maintaining equipment.

Efficiency in operations and services will be significantly impacted. Information and resource sharing will be adversely effected. For example, personnel data bases that could be located at either site with multi-site access would have to be duplicated. This would increase the hardware/software requirement as well as the personnel resources required to maintain and manage the system.

COST BENEFIT ANALYSIS HAS BEEN PERFORMED WITH:

Payback Period = 4.6 years
Return on Investment (ROI) = 21%
Average Annual Savings = $54K

000478

CAPITAL PURCHASES JUSTIFICATION
(Dollars in Thousands)

A. FY 1996/1997 BIENNIAL BUDGET

B. Department of the Navy/Research & Development

C. Processor Expansion Replacement
LINE # AI6KL6104R

D. NAWC-AD

Element of Cost	FY 1993 Qty	FY 1993 Unit Cost	FY 1993 Total Cost	FY 1994 Qty	FY 1994 Unit Cost	FY 1994 Total Cost	FY 1995 Qty	FY 1995 Unit Cost	FY 1995 Total Cost	FY 1996 Qty	FY 1996 Unit Cost	FY 1996 Total Cost	FY 1997 Qty	FY 1997 Unit Cost	FY 1997 Total Cost
Processor Expansion										1	157	157			
TOTAL											157	157			

Narrative Justification:
OPERATIONAL DATE: April 1996

This project is to expand the Material Management System Tandem Computer from six central processing units (CPUs) to eight. This is required to support the use of Oracle database software on the Material Management Information System (MMIS). This will permit the Tandem system and the Distributed Corporate Computing Facility (DCCF) VAX to transfer files without imposing severe constraints on the type and structure of the data.

The procurement of the Processor Expansion will enable the Tandem computer to support the use of Oracle database software. The use of standardized database software such as Oracle for computer software development reduces NAWCAD Indianapolis dependence on proprietary software systems. For this reason, Oracle has been selected as the standard database software on the DCCF VAX computers. Using Oracle on the Tandem computer would enable software running on either the DCCF or the Tandem to access data on either machine, without regard to the actual physical locations of the data. This eliminates the necessity of training personnel on proprietary software and the special-purpose programs to restructure data into an FTP compatible format. The use of Oracle is expected to provide a 10% decrease in the time spent manipulating the current proprietary software. The team will have 1400 hours (10% of the teams annual labor hours) per year to dedicate towards backlogs or development in other applications.

COST BENEFIT ANALYSIS HAS BEEN PERFORMED WITH:

Payback Period = 2.5 year
Return on Investment (ROI) = 36%
Average Annual Savings = $56K

ECONOMIC ANALYSIS IMPACT:

Oracle requires substantial amounts of central processor time. If the expansion is not funded, installing Oracle on the Tandem computer will degrade the systems performance to unacceptable levels. Failure to install and use Oracle for software development will result in the loss of benefits described and continue reliance on costly proprietary operating systems.

000479

CAPITAL PURCHASES JUSTIFICATION
(Dollars in Thousands)

A. FY 1996/1997 BIENNIAL BUDGET

B. Department of the Navy/Research & Development

C. AIR-TO-SURFACE IMAGE PROCESSING-C28 REPLACEMENT
LINE # WC6KL0519R

D. NAWC-WD

	FY 1993			FY 1994			FY 1995			FY 1996			FY 1997		
Element of Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost
Hardware										1	100	100			
Software										1	50	50			
Installation										1	4	4			
Other										1	1	1			
TOTAL											155	155			

Narrative Justification:
OPERATIONAL DATE: September 1996

DESCRIPTION: This submission is an ongoing effort to improve the image processing lab for the Air-To-Surface (AS) Guidance Branch Image Processing Laboratory. The requested hardware and software will help personnel to operate in a more efficient manner, allowing signal and image processing algorithms to be developed and tested faster. The proposed system will include an upgrade to the three computer graphics workstations, a system, developers software upgrade for the workstations, a modern video disk recording system, two super VHS tape recorders, a Macintosh video processing system, and miscellaneous video equipment.

The above specified equipment will provide the computing resources necessary to meet the growing demands on image processing laboratory, the Infrared (IR) Storm laboratory, and the branch. The workstation software and hardware will significantly improve the response time to specific requests made on the Laboratory.

The technology in use at the Image Processing Laboratory represents the most affordable technology that could be procured in the mid to late 1980's. The equipment is already stretched to its capability limits. Simply adding more memory or more disk space will no longer provide the necessary enhanced performance. Without this modest investment, the laboratory will soon be incapable of fulfilling customers ever increasing expectations and will not be used. NAWCWD will thus lose an important state-of-the-art capability. IR Storm is quickly becoming the premier seeker modeling environment and continuous improvement is a requirement if NAWCWD is to continue to be the expert in this area. The branch requires improved computing, communication facilities if its members are to continue to work together effectively.

COST BENEFIT ANALYSIS HAS BEEN PERFORMED WITH:

Payback Period = .6 years
Return on Investment (ROI) = 139%
Internal Rate of Return = 157%
Average Annual Savings = $216K beginning in FY97

000480

CAPITAL PURCHASES JUSTIFICATION
(Dollars in Thousands)

A. FY 1996/1997 BIENNIAL BUDGET

B. Department of the Navy/Research & Development

C. Next Generation Host System REPLACEMENT
LINE # AW6KL7902R

D. NAWC-AD

Element of Cost	FY 1993 Qty	FY 1993 Unit Cost	FY 1993 Total Cost	FY 1994 Qty	FY 1994 Unit Cost	FY 1994 Total Cost	FY 1995 Qty	FY 1995 Unit Cost	FY 1995 Total Cost	FY 1996 Qty	FY 1996 Unit Cost	FY 1996 Total Cost	FY 1997 Qty	FY 1997 Unit Cost	FY 1997 Total Cost
Next Generation Host System										1	150	150			
TOTAL											150	150			

Narrative Justification:
OPERATIONAL DATE: July 1996

The Next Generation Host System will eventually replace the Sun 670 systems we now have in the UYS/2 lab as the host of choice, just at the Suns have replaced the VAX 11/780 series at present. An exact description of the components of this system is impossible at this time, due to the nature of the computer industry, and the rapid development cycle of new host systems. However, it is clear that the system must consist of some type of processor, display, input, and storage device. In addition, it must support all of the interfaces needed by UYS/2 and possible other signal processors as they come along.

COST BENEFIT ANALYSIS HAS BEEN PERFORMED WITH:

Payback Period = 2.2 years
Return on Investment (ROI) = 40%
Average Annual Savings = $61K

Economic Analysis Impact:

To continue to attract new users and platforms to UYS/2, we must continually more to host or softwre on newer and more powerful host systems as the older systems become obsolete. If this equipment is not purchased in FY96 it will lessen the ability of NAWCAD to properly support the UYS/2 product line as the sponsor expects.

000481

CAPITAL PURCHASES JUSTIFICATION
(Dollars in Thousands)

A. FY 1996/1997 BIENNIAL BUDGET

B. Department of the Navy/Research & Development

C. TAC-4 REPLACEMENT
LINE # AW6KL7906R

D. NAWC-AD

Element of Cost	FY 1993 Qty	FY 1993 Unit Cost	FY 1993 Total Cost	FY 1994 Qty	FY 1994 Unit Cost	FY 1994 Total Cost	FY 1995 Qty	FY 1995 Unit Cost	FY 1995 Total Cost	FY 1996 Qty	FY 1996 Unit Cost	FY 1996 Total Cost	FY 1997 Qty	FY 1997 Unit Cost	FY 1997 Total Cost
TAC-4										1	150	150			
TOTAL											150	150			

Narrative Justification:
OPERATIONAL DATE: June 1996

The Tactical Advanced Computer-4 (TAC-4) is the name of the next standard host computer for DOD. The system will be employed as one of the new host systems for the UYS/2 software development system. Due to the rapidly changing technological environment of ADP, the exact system has not yet been selected. However, the general parts will include some type of Posix compliant, Unix based processor with a high resolution display and capability of supporting most of the standard military interfaces. All of the current host systems for the UYS/2 are currently commercial off-the-shelf systems. Because the TAC-4 represents a standard host machine that is widely used it is important for our program to demonstrate compatibility and portability to this host. There will be a 30% increase in productivity.

The standard nature of the TAC-4 makes it an ideal candidate as one of the future host machines for UYS/2. For UYS/2 customers within the Navy it will be a better choice than any of the COTS host systems which will be available in the 1996 timeframe, because of increased availability and longer lifecycle. The equipment will support the UYS/2 project and, indirectly, other projects which employ UYS/2 as part of their architecture.

COST BENEFIT ANALYSIS HAS BEEN PERFORMED WITH:

Payback Period = 3.0 years
Return on Investment (ROI) = 30%
Average Annual Savings = $45K

Economic Analysis Impact:

If this equipment is not purchased in FY96 it will lessen the ability of NAWCAD to properly support the UYS/2 product line as the sponsor expects.

000482

CAPITAL PURCHASES JUSTIFICATION
(Dollars in Thousands)

A. FY 1996/1997 BIENNIAL BUDGET

B. Department of the Navy/Research & Development

C. Help Desk Software REPLACEMENT
LINE #AW6KLC501R

D. NAWC-AD

Element of Cost	FY 1993 Qty	FY 1993 Unit Cost	FY 1993 Total Cost	FY 1994 Qty	FY 1994 Unit Cost	FY 1994 Total Cost	FY 1995 Qty	FY 1995 Unit Cost	FY 1995 Total Cost	FY 1996 Qty	FY 1996 Unit Cost	FY 1996 Total Cost	FY 1997 Qty	FY 1997 Unit Cost	FY 1997 Total Cost
Help Desk Software										1	149	149			
TOTAL												149			

Narrative Justification:
OPERATIONAL DATE: August 1996

The Help Desk Software will provide enhanced capability to respond to user problems by maintaining a database of problems and solutions and sharing this experience across the NAWCAD. There are currently 15 contractors performing the help desk function throughout the Aircraft Division. This software will provide a database that will allow for rapid response to problems and build on the experience throughout the Aircraft Division. This will reduce the number of help desk personnel required to respond to users' problems. This will result in a savings of $160K per year. The contractor labor rate is estimated to be $40K per year. This system will be part of a larger system.

COST BENEFIT ANALYSIS HAS BEEN PERFORMED WITH:

Payback Period = 1.4 years
Return on Investment (ROI) = 60%

000483

CAPITAL PURCHASES JUSTIFICATION
(Dollars in Thousands)

A. FY 1996/1997 BIENNIAL BUDGET

B. Department of the Navy/Research & Development

C. Processor for Inter-Systems Comm REPLACEMENT
LINE # AL6KL0003R

D. NAWC-AD

Element of Cost	FY 1993			FY 1994			FY 1995			FY 1996			FY 1997		
	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost
Processor for Inter-Systems Communication										1	135	135			
TOTAL												135			

Narrative Justification:
OPERATIONAL DATE: September 1996

This processor will handle wide area communications and inter-system communications. The capability of this processor must include network job entry, remote job entry, communications, LAN connectivity, and local terminal/work station connectivity.

With on-going efforts to downsize and decentralize a large portion of the information technology area, it is essential that we retain the capabilities that currently exist while reducing costs and recovering much needed physical space. Remote processing of support equipment data bases and other critical applications must not be impacted by efforts to eliminate older and more costly computing platforms. There must be replacement for the current computing platform that will assure reliable state-of-the-art intersystem communications while providing a substantial cost savings for NAWCAD Lakehurst.

COST BENEFIT ANALYSIS HAS BEEN PERFORMED WITH:

Payback Period = 1.8 year
Return on Investment (ROI) = 48%
Average Annual Savings = $65K

Economic Analysis Impact:

If this purchase is not made, all users communicating across systems, especially remote users, will be severly impacted in performing their jobs. Also, the capability to route job output to our facility would be severely reduced or eliminated.

000484

CAPITAL PURCHASES JUSTIFICATION
(Dollars in Thousands)

A. FY 1996/1997 BIENNIAL BUDGET

B. Department of the Navy/Research & Development

C. Disk Storage Upgrade Replacement
LINE # A16KL6105R

D. NAWC-AD

	FY 1993			FY 1994			FY 1995			FY 1996			FY 1997		
Element of Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost
Disk Storage Upgrade										1	131	131			
TOTAL												131			

Narrative Justification:
OPERATIONAL DATE: April 1996

The disk module (six 2GB drives) and 2 disc controller will be used to increase the storage capacity of the Material Management Information System (MMIS) Tandem computer. This computer supports procurement and manufacturing activities at NAWCAD Indianapolis.

The MMIS Tandem computer runs the Material Information Tracking System (MITS) and the Automated Storage, Kitting, and Retrieval System (ASKARS). Both of these systems have been identified as mission-critical software supporting the procurement and manufacturing activities at NAWCAD Indianapolis. At present, the computer's disk storage is constrained by physical limits of the computer system cabinets. Disk drives are mounted internally, and only four slots remain available (of eighteen total). These drives are accessed through internal multifunction controllers (MFCs) which also control tape and communications devices.

The proposed procurement provides six gigabytes of external mirrored disk storage, accessed through dedicated high-speed disk controllers. The data transfer rate of these dedicated controllers is approximately 25 percent higher than the transfer rate of the MFCs or 1.9 seconds per transaction.

The equipment would prevent delays in material receipt, storage and issuance, thereby reducing cycle time and expediting the shipment of products to the fleet.

COST BENEFIT ANALYSIS HAS BEEN PERFORMED WITH:
Payback Period = 0.7 year
Return on Investment (ROI) = 86%
Average Annual Savings = $113K

ECONOMIC ANALYSIS IMPACT:
If the project is not funded the MITS and ASKARS databases will be severely limited. The continued use and the inevitable expansion of these two mission-critical databases would not be possible with the current supporting equipment due to storage constraints.

000485

CAPITAL PURCHASES JUSTIFICATION
(Dollars in Thousands)

A. FY 1996/1997 BIENNIAL BUDGET

B. Department of the Navy/Research & Development

C. Data Collection System Replacement
LINE # AI6KL5906R

D. NAWC-AD

	FY 1993			FY 1994			FY 1995			FY 1996			FY 1997		
Element of Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost
Data Collection System										1	125	125			
TOTAL												125			

Narrative Justification:
OPERATIONAL DATE: May 1996

The Data Collection system will be used to automate the collection and processing for the Material and Resource scheduling (MARS) system, Trouble Reporting and Correction (TRAC), and Manufacturing Certification Program (MCP). These programs provide data for the manufacturing shop floor to track performance, detect process problems, and maintain processes. The collection of data is accomplished through the use of hand held individual diode Laser scanners and remote data collection terminals connected to one of two main microprocessing units. Additionally, this system will also provide automatic generation of floor personnel labor cards by a log-in and log-out process.

Systems Assembly and Test (SAT) is comprised of 190 craftspersons and 40 support personnel and can have over 350 active jobs being worked at one time. At present there is no cost effective way to collect and process data for process improvements, for earned value analysis, and cost estimating. Currently a manual data entry process is used, but is slow and error prone. Our present labor tracking system is run once a week, and does not allow for real time tracking against planned expenses. SAT personnel and program personnel spend approximately 300 hours per month reconstructing data for report that track the job's progress. It is extremely important to track any possible job cost overruns. Another 500 hours are used in the manual manipulation and collection of the MARS shop operations data.

The solution to the problem is to buy and implement an automated data collection system. The craftsperson will use a barcode reader/wand at the start of a planned activity/operation and use a barcode reader/wand to long-in and log-out when the acitivty/operations is complete. Planned information would be downloaded to the data collection system when the job is assigned to the craftsperson's tram, and the craftsperson would be able to compare his actual time spent against the planned activity. When discrepencies occur, the craftsperson would immediately call the appropriate personnel for assistance. The situation would be addressed and corrective action would begin immediately, eliminating costly delays. Statistical evaluation of activity/operations (planned times versus actual times) and job tracking would be accomplished.

COST BENEFIT ANALYSIS HAS BEEN PERFORMED WITH:
Payback Period = 2.1 year
Return on Investment (ROI) = 43%
Average Annual Savings = $53K

ECONOMIC ANALYSIS IMPACT:
Without the proposed data collection system, SAT will be forced to continue with the slow, tedious task of manually recording data.

000486

CAPITAL PURCHASES JUSTIFICATION
(Dollars in Thousands)

A. FY 1996/1997 BIENNIAL BUDGET

B. Department of the Navy/Research & Development

C. PADS Logic Eng. Design System Replacement
LINE # AI6KL5507R

D. NAWC-AD

	FY 1993			FY 1994			FY 1995			FY 1996			FY 1997		
Element of Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost
PADS Logic Eng. Design System										1	123	123			
TOTAL											123	123			

Narrative Justification:
OPERATIONAL DATE: April 1996

This equipment will replace existing personal computers which are inadequate in producing test equipment circuit board designs. Projects which will be supported by this equipment include TRSS, HARM RT, Maverick, Cluster Ranger, and BQS-15.

The Production Test Technology (PTT) group designs and fabricates production test equipment using the PADS Logic CAD software package. Engineers are presently producing designs on UNISYS 386 computers. These computers are inadequate due to their slowness and cause inefficient use of engineers' time. The existing hardware has significant performance limitations in performing many screen redraws of a design and in recalculating a plot file when transmittng it to the plotter. PTT produces approximately 700 sheets of drawings per year requiring 16 hours of design time per sheet.

The new system will provide engineers with more powerful workstations and increase productivity. The new equipment will reduce engineer design time to 15 hours per sheet since switching between applications will be faster. Also, this system will have larger monitors which will enable viewing of larger zoomed areas at one time allowing changes to be completed more easily.

COST BENEFIT ANALYSIS HAS BEEN PERFORMED WITH:

Payback Period = 1.4 year
Return on Investment (ROI) = 60%
Average Annual Savings = $74K

ECONOMIC ANALYSIS IMPACT:

The existing computers and plotter are not capable of running the engineering design tools efficiently and expeditiously. This will allow for a decrease in engineer design productivity.

000487

CAPITAL PURCHASES JUSTIFICATION
(Dollars in Thousands)

A. FY 1996/1997 BIENNIAL BUDGET

B. Department of the Navy/Research & Development

C. Case Tool Software REPLACEMENT
LINE # AL6KL0001R

D. NAWC-AD

Element of Cost	FY 1993 Qty	FY 1993 Unit Cost	FY 1993 Total Cost	FY 1994 Qty	FY 1994 Unit Cost	FY 1994 Total Cost	FY 1995 Qty	FY 1995 Unit Cost	FY 1995 Total Cost	FY 1996 Qty	FY 1996 Unit Cost	FY 1996 Total Cost	FY 1997 Qty	FY 1997 Unit Cost	FY 1997 Total Cost
Case Tool Software										1	116	116			
TOTAL												116			

Narrative Justification:
OPERATIONAL DATE: September 1996

A set of compatible software tools are required to aid in the specification, design, testing, and documentation of software for embedded ADA applications. In addition, a computer compatible with an existing ADA workstation is needed to provide the storage and computational power to run these tools. Two graphic terminals and a portable terminal are also required for remote use via modem of LAN connection.

Current capabilities for many of the software requirements consists of manually executing time consuming and error prone tasks. The use of these tools and equipment will streamline and standardize the current process and will fulfill many of the process requirements mandated by DOD-STD-2167A. The Case Tool Software itself is not mandated.

The Case Tool Software will aid in establishing software development processes, as well as help to automate many of the important tasks performed during software development, such as configuration control, documentation, and testing. Once the Case Tools are incorporated into the NAWCAD process, a more defined and controlled effort will be achieved which will yield better products at lower costs.

COST BENEFIT ANALYSIS HAS BEEN PERFORMED WITH:

Payback Period = 4.4 year
Return on Investment (ROI) = 22%
Average Annual Savings = $26K

Economic Analysis Impact:

Non-procurement will perpetuate the problem of executing tasks that are error-prone and time consuming. Where semi-automated tools are available they are currently not standard between users and are awkward to use together.

000488

CAPITAL PURCHASES JUSTIFICATION
(Dollars in Thousands)

A. FY 1996/1997 BIENNIAL BUDGET

B. Department of the Navy/Research & Development

C. Automated DOC MGMT Publishing System Updates
REPLACEMENT
LINE # AL6KL0004R

D. NAWC-AD

	FY 1993			FY 1994			FY 1995			FY 1996			FY 1997		
Element of Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost
Automated Document Management and Publishing Systems Updates										1	100	100			
TOTAL											100	100			

Narrative Justification:
OPERATIONAL DATE: July 1996

The automated document management and publishing system (ADMAPS) is a desktop publishing system consisting of SUN workstations and CALS-compliant application software. The system as presently configured, lacks the necessary capability and functionality. The equipment requested will upgrade memory, disk storage, publishing process control software and related maintenance support. This will allow the DOD-mandated CALS publishing effort at Lakehurst to become operational and enable the production technical manuals and other documents.

NAWCAD Lakehurst is utilizing the existing system with limited success due to memory and software limitations. The proposed method includes the elimination of many manual steps in a labor intensive process by providing enhanced automation to improve capacity, performance and document management.

Expected benefits include faster cycle time, reduced transaction cycle and better quality documentation to the Fleet at reduced life cycle cost, in direct support of NAWCAD Lakehurst mission.

COST BENEFIT ANALYSIS HAS BEEN PERFORMED WITH:

Payback Period = 1 year
Return on Investment (ROI) = 81%
Average Annual Savings = $81K

Economic Analysis Impact:

If not procured poorer quality technical manuals resulting in maintenance and rework costs will directly impact Fleet operations. There will be increased administrative and spare parts costs, and increased rework and associated costs due to inefficiencies in the existing process which is very labor intensive and lacks the capability to prevent and detect errors. It will have a negative impact on production capability in a downsizing environment. Existing personnel cannot continue at their present capacity without more automation.

000489

CAPITAL PURCHASES JUSTIFICATION
(Dollars in Thousands)

A. FY 1996/1997 BIENNIAL BUDGET

B. Department of the Navy/Research & Development

C. Classified Data Processing System
Expansion
Replacement
LINE # AX6KL0004R

D. NAWC-AD

Element of Cost	FY 1993 Qty	FY 1993 Unit Cost	FY 1993 Total Cost	FY 1994 Qty	FY 1994 Unit Cost	FY 1994 Total Cost	FY 1995 Qty	FY 1995 Unit Cost	FY 1995 Total Cost	FY 1996 Qty	FY 1996 Unit Cost	FY 1996 Total Cost	FY 1997 Qty	FY 1997 Unit Cost	FY 1997 Total Cost
Classified Data processing System Expansion										1	100	100			
TOTAL											100	100			

Narrative Justification
Operational Date: April 1996

Stand alone Reduced Instruction Set Computing (RISC) based, Portable Operating Systems Information Exchange (POSIX) compliant, Open VMS and Unix application and file servers and X window terminals to expand Computer Science Directorate's (CSD) current classified engineering and scientific computing resources. The system will comply with open systems standards and will allow removable magnetic and optical disk storage. The minimum hardware and software requirements include multi-processor computer platforms, X window terminals, tape backup, removable optical and magnetic disk storage, POSIX compliant Open VMS and Unix operating system, and Ada, FORTRAN and C compilers. In additiion, there will be a requirement for off-the-shelf statistical and engineering analysis software.

With the anticipated workload of Trenton and Warminster engineers, it is critical that CSD be prepared to provide a modern, low-maintenance computing environment for classified processing.

COST BENEFIT ANALYSIS HAS BEEN PERFORMED WITH:
Payback Period: 0.8 years
Return on Investment: 99%
Average Annual Savings: $99K

Economic Analysis Impact:
The CSD currently maintains and supports a classified engineering and scientific computing environment based on a DEC OpenVMS computer system. This environment allows engineers and scientists at Patuxent River to develop applications, analyze and process flight test and scientific data, and generate reports for projects requiring a specialized, secure, classified computing area. With the announcement of Warminster and Trenton personnel requiring access to a classified OpenVMS and Unix processing environment for engine data reduction and aircraft systems research and development, it is necessary for CSD to plan for this additional workload. Without this funding, Trenton, Warminster and Patuxent River customers would not have a large enough classified computer center to meet high priority, high visibility program data processing requirements. If a replacement system is not procured, engineers will not receive their reduced classified flight test and engine data in a timely manner, thus delaying test programs and fleet deliveries of items dependent on T&E results.

000490

CAPITAL PURCHASES JUSTIFICATION
(Dollars in Thousands)

A. FY 1996/1997 BIENNIAL BUDGET

B. Department of the Navy/Research & Development

C. NAS Equipment Enhancements Replacement
LINE # AX7KL0003R

D. NAWC-AD

Element of Cost	FY 1993 Qty	FY 1993 Unit Cost	FY 1993 Total Cost	FY 1994 Qty	FY 1994 Unit Cost	FY 1994 Total Cost	FY 1995 Qty	FY 1995 Unit Cost	FY 1995 Total Cost	FY 1996 Qty	FY 1996 Unit Cost	FY 1996 Total Cost	FY 1997 Qty	FY 1997 Unit Cost	FY 1997 Total Cost
NAS Equipment Enhancements													1	825	825
TOTAL														825	825

Narrative Justification:
Operational Date: July 1997

This procurement involves the purchase of computer equipment, including workstations consisting of central processing units, monitors, keyboards, printers, standardized software, etc. This procurement also involves the purchase of coaxial cabling, computer hubs, drops, network cards, and other associated networking equipment.

The Naval Air Station requires computer equipment and resources that will meet the needs of its customers as well as provide a quality end product. In order to accomplish this mission, we must advance with computer technology. The Naval Air Station has increasing demands for administrative, managerial, and technical information. To satisfy these demands and assist with planning and tracking resource usage, timely and accurate information must be provided to managers. With current resources, this requirement cannot be satisfied.

Payback Period: 3.4 years
Return on Investment: 27%
Averge Annual Savings: $226K

Economic Analysis Impact:

Current computer equipment at the Naval Air Station is at a substandard level. The effect of remaining at status quo involves high maintenance costs, archaic computer systems that cannot keep up with additional workloads, and the inability to perform current tasks in an acceptable timeframe. Many administrative and managerial tasks are still performed manually when computer technology could replace these tasks. Many functions could be performed in an extremely efficient and effective manner. Without replacement of these manual tasks and the current computer equipment, planning efforts, financial and resource tracking, data reporting and analysis efforts cannot be met.

000491

CAPITAL PURCHASES JUSTIFICATION
(Dollars in Thousands)

A. FY 1996/1997 BIENNIAL BUDGET	
B. Department of the Navy/Research & Development	C. Phototool Generation System Replacement LINE # AI7KL5702R
	D. NAWC-AD

	FY 1993			FY 1994			FY 1995			FY 1996			FY 1997		
Element of Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost
Phototool Generation System													1	815	815
TOTAL															815

Narrative Justification:
OPERATIONAL DATE: September 1997

The proposed phototool generation system (PGS) will replace the existing NAWCAD Indianapolis phototool generation system which was put into production in 1988. The PGS will consist of 1 flat bed laser photoplotter and 3 Printed Wiring Board (PWB) tooling CAM workstations. The photoplotter will be a 1/4 mil resolution, 1/2 mil accuracy 22" x 28" minimum flat bed laser photoplotter, with an automatic load, and queuing for input from 5 workstations.

COST BENEFIT ANALYSIS HAS BEEN PERFORMED WITH:

Payback Period = 3.2 year
Return on Investment (ROI) = 29%
Average Annual Savings = $236K

ECONOMIC ANALYSIS IMPACT:

If this project is not funded, NAWCAD Indianapolis will be forced to begin contracting out the majority of the phototool development at a cost of more than $400,000 per year. This is due to the fact that the existing equipment will be 10 years old in FY96, and at that time it will become very expensive and illogical to maintain. The software for the existing system has not been upgraded since 1990. New data formats and revisions of old ones will not be available for the current system. To do business in the current environment of computer automation it will be necessary to be able to use all the current PWB data formats.

000492

CAPITAL PURCHASES JUSTIFICATION
(Dollars in Thousands)

A. FY 1996/1997 BIENNIAL BUDGET

B. Department of the Navy/Research & Development

C. ADAPS (Data Acquisition/Process) REPLACEMENT
LINE # AW7KL1419R

D. NAWC-AD

	FY 1993			FY 1994			FY 1995			FY 1996			FY 1997		
Element of Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost
ADAPS (Data Acquisition/ Process)													1	750	750
TOTAL														750	750

Narrative Justification:
OPERATIONAL DATE: December 1997

The ADAPS is an interactive roll-on/roll-off active sonar receiver and display system used for multi-static active (MSA) sonar processing and display. The ADAPS will provide operator controllable audio and visual displays to enable the system operator to quickly and effectively analyze data from up to 32 channels simultaneously in real time. The ADAPS is a rack-mounted system with ruggedized hardware components that make it an ideal system for on-station support of all NAWCAD acoustic sensor sea and air tests. The ADAPS represents an much-needed upgrade to existing NAWCAD data analysis and display systems, for these existing systems are difficult to transport and are unreliable in the field. Furthermore, existing systems use dated technology that lack the real time processing power required by current and plan acoustic sensor systems.

COST BENEFIT ANALYSIS HAS BEEN PERFORMED WITH:

Payback Period = 3 years
Return on Investment (ROI) = 31%
Average Annual Savings = $229K

Economic Analysis Impact:

Failure to purchase a new acoustic data acquisition and processing system will cause significant delays in the life cycle of the aforementioned sensor programs. It should also be noted that the existing systems are nearing the end of their useful lives. These systems are of an older architecture that is rapidly becoming obsolete as advances in digital signal processing (DSP) hardware technologies continue to soar. Furthermore, these systems are difficult to transport and are particulatly difficult for aircraft installations for testing in the field. All of these factors add up to a growing reliabiilty problem with the existing systems. System failures during on-station testing are common and very costly to the sensor programs. Therefore, the acquisition of the ADAPS is critical for the continued success of these acoustic sensor programs in FY95 and beyond.

000493

CAPITAL PURCHASES JUSTIFICATION
(Dollars in Thousands)

A. FY 1996/1997 BIENNIAL BUDGET

B. Department of the Navy/Research & Development

C. Engineering Workstation REPLACEMENT
LINE # AL7KL0002R

D. NAWC-AD

Element of Cost	FY 1993			FY 1994			FY 1995			FY 1996			FY 1997		
	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost
Engineering Work Station													1	675	675
TOTAL														675	675

Narrative Justification:
OPERATIONAL DATE: November 1997

Engineering workstations and modeling software will be used for mechanical engineering drawings and analysis that is currently down using less sophisticated software and hardware. The upgrade of this capability will greatly increase the productivity of engineering personnel.

These workstations and compatible software will reduce the number of manhours by approximately one third in the development of systems requiring mechanical engineering capabilities. Major programs that will benefit from the upgrade include the MK7 MOD IV arresting gear system and the aircraft generator test stand.

COST BENEFIT ANALYSIS HAS BEEN PERFORMED WITH:

Payback Period = 2.5 year
Return on Investment (ROI) = 37%
Average Annual Savings = $246K

Economic Analysis Impact:

Efforts to perform state-of-the-art modeling and analysis will be limted and the products that support the fleet will be costly and substandard.

000494

CAPITAL PURCHASES JUSTIFICATION
(Dollars in Thousands)

A. FY 1996/1997 BIENNIAL BUDGET

B. Department of the Navy/Research & Development

C. UNIX/DOS Workstation REPLACEMENT
LINE # AL7KL0001R

D. NAWC-AD

	FY 1993			FY 1994			FY 1995			FY 1996			FY 1997		
Element of Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost
UNIX/DOS Workstation													1	590	590
TOTAL														590	590

Narrative Justification:
OPERATIONAL DATE: November 1997

Engineering workstations and modeling software will be used for electrical engineering drawings and analysis that is currently done using less sophisticated software and hardware. The upgrade of this capabilty will greatly increase the producitivty of engineering personnel.

These workstations and compatible software will reduce the time spent in circuit layout and analysis of a proposed design. The current process is not standardized between design and engineering notebooks. Standardization of these areas will improve our corporate memory vice reliance on an individual's files and memory. When personnel changes are required during the course of a project, these systems will facilitate the transfer of work to another engineer with minimal impact. In addiiton, the UNIX format is an open operating system which provides the flexibilty needed for capability with existing systems.

COST BENEFIT ANALYSIS HAS BEEN PERFORMED WITH:

Payback Period = 2.5 year
Return on Investment (ROI) = 36%
Average Annual Savings = $211K

Economic Analysis Impact:

Efforts to perform state-of-the-art modeling and analysis will be limited and the products that support the fleet will be costly and substandard.

000495

CAPITAL PURCHASES JUSTIFICATION
(Dollars in Millions)

A. FY 1994/1995 BIENNIAL BUDGET

B. Department of the Navy/Research & Development

C. SGI Onyx REPLACEMENT
LINE # AX7KL0084R

D. NAWC-AD

Element of Cost	FY 1994			FY 1995			FY 1996			FY 1997		
	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost
SGI Onyx										1	435	435
		-------	-------		-------	-------		-------	------		-------	-----
											435	435

Narrative Justification:
OPERATIONAL DATE: January 1998

JUSTIFICATION: The SGI Onyx will consist of numerous workstations, Mini Crew Station flight simulators and a high fidelity simulation station which will provide an increased capability to provide digital flight control computer support for all Navy aircraft that utilize digital flight control computers. The test facility will utilize a generic architecture that can support any aircraft using a digital flight control system and shared resources among differenet projects to increase efficiency and cost effectiveness. This submission is for a Silicon graphics SGI Onyx simulation processor. The test facility will have four major components which consist of flight Control Computer Test Stations (FCCTS), computational resources, flight control computer interfaces, and piloted simulation stations. The SGI Onyx processor is capable of providing high fidelity image generation, high speed aerodynamic modeling, and state of the art simulation processing in a cost effective, integrated package.

COST BENEFIT ANALYSIS HAS BEEN PERFORMED WITH:
Estimated Payback Period = 1.6 years
Estimated ROI = 55%
Average Annual Savings = $238K

ECONOMIC ANALYSIS IMPACT:

The development of these capabilities are required to allow the test and evaluation of new technology systems in the laboratory under controlled environmental conditions. Testing in a controlled laboratory environment is preferable to actual aircraft flight testing which could be hazardous, limited in scope, and subject to unpredictable atmospheric conditions. If this project is deferred, it would force the test and evaluation of new technology systems not to be conducted, or if conducted, it would only partially evaluate the operational capbilities of these systems. The tests that cannot be performed on the ground will have to be performed in a high risk, high cost flight test evaluation. The ability to accurately interface with the digital flight control system and control simulated aircraft conditions allows for precise replication of flight conditions which would reduce risk to the aircrew.

000496

CAPITAL PURCHASES JUSTIFICATION
(Dollars in Thousands)

A. FY 1996/1997 BIENNIAL BUDGET

B. Department of the Navy/Research & Development

C. Satellite/Secure Data Distribution Network
REPLACEMENT
LINE # AW7KL7902R

D. NAWC-AD

	FY 1993			FY 1994			FY 1995			FY 1996			FY 1997		
Element of Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost
Satellite/Secure Data Distribution Network													1	350	350
TOTAL														350	350

Narrative Justification:
OPERATIONAL DATE: June 1997

The Satellite/Secure Data Distribution Network will be a high-speed, high-bandwidth computer communications link connecting the UYS/2 and other computer labs. As the operational date is not until FY97, the exact technology to be used is not known at this time. However, it is clear that some type of high-speed local link will be required, including hardware and cabling of some sort, in addition to the outside link-up and crypting/decrypting gear. Other technologies are anticipated, such as video conferencing and possible transmission of holographic data.

The state of the art in data transmission and networking is advancing as fast or faster than other areas of computer technology. Transmission of large quantities of data very quickly will become more and more necessary, with the advent of higher resolution video and other new software technologies, as well as secure data.

Networking, more than any other area, has the potential to increase the productivity of the software engineer to great degrees. It is expected that a 30% increase in producitivity will reduce the manpower requriement for 5 wy to 4 wy. Access to repositories of reusable software alone would justify the cost of the system.

COST BENEFIT ANALYSIS HAS BEEN PERFORMED WITH:

Payback Period = 3.0 years
Return on Investment (ROI) = 30%
Average Annual Savings = $106K

Economic Analysis Impact:

If this equipment is not purchased in FY97 it will lessen the ability to NAWCAD to properly support the UYS/2 product line as the sponsor expects.

000497

CAPITAL PURCHASES JUSTIFICATION
(Dollars in Thousands)

A. FY 1996/1997 BIENNIAL BUDGET

B. Department of the Navy/Research & Development

C. QUAD 1860 Processing Boards REPLACEMENT
LINE # AW7KL5322R

D. NAWC-AD

	FY 1993			FY 1994			FY 1995			FY 1996			FY 1997		
Element of Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost
QUAD 1860 Processing Boards													2	163	326
TOTAL														163	326

Narrative Justification:
OPERATIONAL DATE: January 1997

This item consists of two 6U VME cards contained in a chassis which can be connected to a UNIX workstation or be used with a single board computer running a real-time operating system. Each CSPI Corp Supercard 4 board is based on four Intel 1860 process sorts. The system has a total processing power of 640 MFLOPS. These projects have been investigating the use of non-linear dynamics and in-sensor data fusion for the detection and classification of acoustic targets in the ocean environment. These processes consume enormous amounts of processing power. The current system often requires one to several days to complete a computer run. The proposed system would cut the time to process data and observe results by a factor of ten.

This acquisition allows investigators to utilize and test updated techniques at an accelerated rate to achieve fast turn around for sponsors and prospective customers. This will also result in more advanced levels of in-house experience for scientists and engineers.

COST BENEFIT ANALYSIS HAS BEEN PERFORMED WITH:

Payback Period = 2.6 years
Return on Investment (ROI) = 34%
Average Annual Savings = $112K

Economic Analysis Impact:

If this processor is not procured, complex algorithms could not be investigated in a timely manner which would adversely affect current and future projects.

000438

CAPITAL PURCHASES JUSTIFICATION
(Dollars in Thousands)

A. FY 1996/1997 BIENNIAL BUDGET

B. Department of the Navy/Research & Development

C. Corporate X-Windows Implementation Replacement
LINE # AX7KL0008R

D. NAWC-AD

Element of Cost	FY 1993 Qty	FY 1993 Unit Cost	FY 1993 Total Cost	FY 1994 Qty	FY 1994 Unit Cost	FY 1994 Total Cost	FY 1995 Qty	FY 1995 Unit Cost	FY 1995 Total Cost	FY 1996 Qty	FY 1996 Unit Cost	FY 1996 Total Cost	FY 1997 Qty	FY 1997 Unit Cost	FY 1997 Total Cost
Corporate X-windows Implementation													1	300	300
TOTAL														300	300

Narrative Justification:
Operational Date: June 1997

X-windows software allows desktop PC and Macintosh users to run Windows XR11 software applications written in the Motif programming environment. This will allow developers and users to run the latest versions of common off-the-shelf software such as Oracle, SAS, and Focus that utilize the X-windows environment. The software components include individual PC and Macintosh software licenses and documentation for 3000 corporate applications users.

This software is different from the Microsoft Windows and Macintosh windowing software environments.

The greatest benefit would be the ease-of-use for each corporate application user at Patuxent River. Just as desktop users are moving toward the Microsoft Office products that have point and click, drag and drop, on-line help, cut and paste functions that are easy to use, it would be a great benefit to corporate applications users to have that same look and feel with financial, inventory, contracts, training, travel or other corporate business data.

COST BENEFIT ANALYSIS HAS BEEN PERFORMED WITH:

Payback Period: 0.3 years
Return on Investment: 294%
Average Annual Savings: $882K

Economic Analysis Impact:

With the Computer Science Directorate (CSD) implementing a new Unix-based distributed corporate server environment, a new fiber optic network communications system, and a new network operating system for the Patuxent River complex over the next five years, it is only logical that the corporate applications software also be modernized and improved. Rather than simple text menus, users will be able to point and click their corporate applications just as they will with their desktop and NOS applications. Without this procurement, CSD will not be able to implement the latest software products that the entire corporate applications are based upon (ie. Oracle and SAS). If this system is not purchased, relapse into obsolete, non-supported computing environments will occur.

000499

CAPITAL PURCHASES JUSTIFICATION
(Dollars in Thousands)

A. FY 1996/1997 BIENNIAL BUDGET

B. Department of the Navy/Research & Development

C. H-3 and Variants Simulation System REPLACEMENT
LINE # AW7KL1202R

D. NAWC-AD

Element of Cost	FY 1993			FY 1994			FY 1995			FY 1996			FY 1997		
	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost
H-3 and Variants Simulation System													1	250	250
TOTAL														250	250

Narrative Justification:
OPERATIONAL DATE: September 1997

The H-3 Variants simulation system phase II consists of additional mini-and micro-computer based hardware required to execute system modeling and system engineering and analysis, software in a life cycle support capacity for the H-3 helicopters and variants platforms. The H-3 variants consists of various Foreign Military Sales (FMS) versions of the aircraft. The H-3 and variants simulation system is an add on capability for the Vertical Flight Division and is critical for obtaining future funding for performing systems integration and testing of the H-3 FMS variants and associated avionic subsystems.

COST BENEFIT ANALYSIS HAS BEEN PERFORMED WITH:

Payback Period = 2.0 years
Return on Investment (ROI) = 43%
Average Annual Savings = $108K

Economic Analysis Impact:

Failure to procure this equipment would certainly jeopardize the capability of NAWCAD adequately bidding and performing future work for the H-3 and FMS program offices.

000500

CAPITAL PURCHASES JUSTIFICATION
(Dollars in Thousands)

A. FY 1996/1997 BIENNIAL BUDGET

B. Department of the Navy/Research & Development

C. EXPERT SYSTEM WITH VOICE RECOGNITION REPLACEMENT
LINE # WC7SL0520R

D. NAWC-WD

	FY 1993			FY 1994			FY 1995			FY 1996			FY 1997		
Element of Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost
Hardware															
Software													1	250	250
Installation															
Other															
TOTAL														250	250

Narrative Justification:
OPERATIONAL DATE: January 1998

DESCRIPTION: The Expert System (also known as the Knowledge-Based system) will be able to handle the intellectual aspects of on-line searching and will have the capability of being hosted on a mainframe computer, allowing remote access by multiple users over existing local area networks (LAN). This system will allow for integrated procedural programming, with interactive accessibility and the capability to interpret the interchange of complex, relational data hosted in various databases.

Current processes for generating, processing, and awarding acquisition packages are largely manual, labor intensive and burdened with a myriad of complex, subjective, and constantly changing rules and regulations from a number of layers of Government. In order to maintain consistent level of work output, we must "keep up with" an average of 8 changed pages of regulations every day. This means procurement personnel are in a constant training mode; funds must be spent on training facilities, training materials, instructors, and labor hours for participants. Implementation of a knowledge based "expert" system would allow for more consistency, reduce Procurement Acquisition Lead Time (PALT), improve the quality of work produced and increase the efficiency of our organization. We anticipate a reduction in funds designated for technical (procurement related) training. Additionally, since a knowledge based system would allow for each customer and buyer to operate in a more effective, efficient, and streamlined manner, we anticipate a cost saving to the Government. A long range benefit of the system is that it would not be limited to the Procurement Personnel, but would be available through the network, to the technical and support code personnel. Therefore, the extent of the long term cost savings to the Government is difficult to capture, at this point; however, we estimate a cost avoidance of about one man year of labor. There will also be a small yearly savings in material, primarily reduced paper usage.

Failure to implement an expert system that will involve the entire acquisition process will result in the continued large monetary investment for continual training and inconsistencies in the amount and quality of work produced.

COST BENEFIT ANALYSIS HAS BEEN PERFORMED WITH:

Payback Period = 4.8 years
Return on Investment (ROI) = 21%
Average Annual Savings = $52K beginning in FY98

000501

CAPITAL PURCHASES JUSTIFICATION
(Dollars in Thousands)

A. FY 1996/1997 BIENNIAL BUDGET

B. Department of the Navy/Research & Development

C. AUTOMATED LIBRARY CAPABILITY REPLACEMENT
LINE # WC7SL0521R

D. NAWC-WD

	FY 1993			FY 1994			FY 1995			FY 1996			FY 1997		
Element of Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost
Hardware															
Software															
Installation													1	250	250
Other															
TOTAL														250	250

Narrative Justification:
OPERATIONAL DATE: September 1998

DESCRIPTION: The Automated Library Capability (Visual Imagery with Documentation Access on the Network) would provide the Procurement Department Contract specialists with the capability to have access to library materials on the network. This capability would consist of not just an index of all the material, but also the capability to access the documents on line. This project supports the Navy's and the Procurement Department's goal of a "paperless" work environment. Personnel will not have to go to the procurement library to check out documentation or reference data. The automated library capability will result in more efficient use of time and a cost savings to the government. Multiple file copies of documents will not have to be kept. Purchase and maintenance of automated filing systems (power files such as lektrievers, etc.) will no longer be required, making more floor space available for other use. It is estimated to save a manyear of labor and to reduce the contractual services required by a third.

Reliance on manual methods will result in continued manual storage and retrieval of documents, inefficient use of personnel resources, continued maintenance of filing systems, and wasted floor space.

COST BENEFIT ANALYSIS HAS BEEN PERFORMED WITH:

Payback Period = 4.9 years
Return on Investment (ROI) = 20%
Average Annual Savings = $51K beginning in FY98

205002

CAPITAL PURCHASES JUSTIFICATION
(Dollars in Thousands)

A. FY 1996/1997 BIENNIAL BUDGET

B. Department of the Navy/Research & Development

C. Sonar Data Acquisition/Beamformer REPLACEMENT
LINE # AW7KL5306R

D. NAWC-AD

	FY 1993			FY 1994			FY 1995			FY 1996			FY 1997		
Element of Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost
Sonar Data Acquisition/Beamformer													1	223	223
TOTAL														223	223

Narrative Justification:
OPERATIONAL DATE: February 1997

The ICS System 1000 is a 64 channel sonar processing system. Features include analog to digital conversion, beamforming, digital filtering, and digital recorder interface.

Projects have been investigating the use of non-linear dynamics and in-sensor data fusion for the detection and classification of acoustic targets in the ocean environment. These processes consume enormous amounts of processing power and existing systems often require computer runs of one or more days to complete. The proposed system would cut the time to process data and observe results by a factor of ten. This acquisition allows investigators to utilize and test updated techniques at an accelerated rate to achieve fast turn around for sponsors and prospective customers. This will also result in more advanced levels of in-house experience for scientists and engineers.

COST BENEFIT ANALYSIS HAS BEEN PERFORMED WITH:

Payback Period = 1.1 years
Return on Investment (ROI) = 74%
Average Annual Savings = $165K

Economic Analysis Impact:

If this system is not acquired during this fiscal year, analysis will have to be continued on the present systems. Since the present systems do not contain the increased input channels, labor costs will rise to efficiently process data for sponsors.

000503

CAPITAL PURCHASES JUSTIFICATION
(Dollars in Thousands)

A. FY 1996/1997 BIENNIAL BUDGET

B. Department of the Navy/Research & Development

C. Client Server SPARC System REPLACEMENT
LINE # AW7KL5319R

D. NAWC-AD

Element of Cost	FY 1993			FY 1994			FY 1995			FY 1996			FY 1997		
	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost
Client Server Sparc System													1	211	211
TOTAL														211	211

Narrative Justification:
OPERATIONAL DATE: January 1997

The server is a Sparcsystem 1000 with four 50 MHZ Supersparc processors expandable to eight processors. Each client is a Sparcstation 10 with one 50 MHZ Supersparc processor (expandable to four processors), and a color monitor. Also included in the system is 8 GBytes of mass storage, tape backups, a laser printer, and a color printer. The workstations include accelerated graphics, and 16 bit stereo analog-to-digital (A/D), and will be used for sonar data visualization and detection/classification algorithm development. Software will include development tools and math/signal processing packages.

Projects have been investigating the use of non-linear dynamics and in-sensor data fusion for the detection and classification of acoustic targets in the ocean environment. These processes consume large amounts of processing power and existing systems often require one or more days to complete a run. The proposed system would reduce the time to process data and observe results.

This acquisition allows investigators to utilize and test updated techniques at an accelerated rate to achieve fast turn-around for sponsors and prospective customers.

COST BENEFIT ANALYSIS HAS BEEN PERFORMED WITH:

Payback Period = 1.1 years
Return on Investment (ROI) = 77%
Average Annual Savings = $161K

Economic Analysis Impact:

If these systems are not purchased in this fiscal year delivery schedules on the development of signal processing algorithms and data processing for sponsors will be adversely affected.

000504

CAPITAL PURCHASES JUSTIFICATION
(Dollars in Thousands)

A. FY 1996/1997 BIENNIAL BUDGET

B. Department of the Navy/Research & Development

C. Optical Jukebox REPLACEMENT
LINE # AL7KL0003R

D. NAWC-AD

	FY 1993			FY 1994			FY 1995			FY 1996			FY 1997		
Element of Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost
Optical Jukebox													1	200	200
TOTAL														200	200

Narrative Justification:
OPERATIONAL DATE: June 1997

This system consists of drawing management system software and a series of interconnected optical disks (jukebox) as the drawing repository. The system provides engineering drawing management capabilities for retrieval, update, archive, etc.

The present method of acquiring a technical document/drawing requires approximately 8 hours of labor and takes 2-3 weeks for delivery. No less than 200 documents are requested each month by this activity. The replacement system will considerably reduce the amount of time gathering technical data. The system will be tied to the local area network (LAN) allowing all LAN users instant access to the available data. The addition of this system will cut the time to delivery to less than one hour for printing and labor costs will be negligible.

COST BENEFIT ANALYSIS HAS BEEN PERFORMED WITH:

Payback Period = 0.8 years
Return on Investment (ROI) = 110%
Average Annual Savings = $220K

Economic Analysis Impact:

The consequences of not installing this system are lower productivity and efficiency. Project/problem resolution reponse time will continue to lag potential times, and opportunities for rapid response will be lost. The impact will be most severe on projects that directly affect fleet support.

CAPITAL PURCHASES JUSTIFICATION
(Dollars in Thousands)

A. FY 1996/1997 BIENNIAL BUDGET

B. Department of the Navy/Research & Development

C. DIGITAL PHOTO IMAGE MANAGEMENT SYSTEM REPLACEMENT
LINE # WC7KL0522R

D. NAWC-WD

	FY 1993			FY 1994			FY 1995			FY 1996			FY 1997		
Element of Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost
Hardware													1	195	195
Software													1	5	5
Installation															
Other															
TOTAL														200	200

Narrative Justification:
OPERATIONAL DATE: September 1998

DESCRIPTION: The system consists of a high-resolution scanner, a computer workstation, CD ROM drive, a CD writer, printer, monitor, a photo Jukebox and application software packages. The Digital Photo Image management System is a writable/readable Photo CD system that has the capability to visually archive more than 125K images. The current archive computer search procedure only uses key words to identify one to several hundred images. These file numbers are then manually located and retrieved. The required image is selected from the samples, printed and then manually placed back into the archives. This labor-intensive procedure can take many hours, depending on the number of items to be retrieved.

If this system is not procured, the Photo Lab archives will continue to be a labor-intensive, computer-generated, manual retrieval system. The Photo archives area is a contract operation, which has been reduced from a three man-year effort to the current two man-year effort; yet the workload has not decreased. This causes delays in research to accommodate day-to-day customer use of the Photo Lab service. The archives increase at a rate of approximately five thousand images per year. Search delays will increase without an improved archive and retrieval system.

CD-ROM technology offers a method of transforming large amounts of conventionally created information into a digital format which can be networked and shared/accessed by many. This advanced method of electronic imaging and data storage is part of the move toward global information networks. It provides more efficient access to information, improved decision-making tools, as well as data exchange/interoperability between military and DoD activities.

COST BENEFIT ANALYSIS HAS BEEN PERFORMED WITH:

Payback Period = 2.3 years
Return on Investment (ROI) = 39%
Internal Rate of Return = 29%
Average Annual Savings = $77K beginning in FY98

000506

CAPITAL PURCHASES JUSTIFICATION
(Dollars in Thousands)

A. FY 1996/1997 BIENNIAL BUDGET

B. Department of the Navy/Research & Development

C. Corporate DEC System Expansion Replacement
LINE # AX7KL0005R

D. NAWC-AD

	FY 1993			FY 1994			FY 1995			FY 1996			FY 1997		
Element of Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost
Corporate DEC System Expansion													1	175	175
TOTAL														175	175

Narrative Justification:
Operational Date: June 1997

The 64-bit RISC multi-processing system will expand the Computer Science Directorate (CSD) current engineering and scientific computing resources. The system will comply with open systems standards and will allow fiber network connectivity and optical disk storage. The minimum hardware and software requriements include a multi-processor computer platform, tape backup, optical and magnetic disk storage, POSIX compliant operating system, Ada, FORTRAN and C compilers, and Ethernet and FDDI network connectivity. In addition, there will be a requirement for off-the-shelf statistical and engineering analysis software.

The 64-bit Alpha chip is state-of-the-art hardware developed by DEC and has clock speeds up to 275MHz. There is currently only one vendor, but by FY97 most companies will have a 64-bit chip on the market. This system will provide modern, rapid, reliable processing of database information and engineering data. It would improve CSD's visibility as an information processing organization, increase efficiency in maintenance and support areas, and improve engineer's data processing turnaround time.

COST BENEFIT ANALYSIS HAS BEEN PERFORMED WITH:

Payback Period: 1.8 years
Return on Investment: 49%
Averge Annual Savings: $85K

Economic Analysis Impact:
Not only will the CSD be impacted by not investing in this DEC hardware expansion, but all FTEG activities will be impacted. The DEC systems currently support business and data processing on such projects as Command Workload, Corporate Resources Management, the V-22 Osprey tilt-rotor aircraft, the F-18E/F, and numerous H-60, AH-1W and other helicopter flight tests. Investment in expansion of the DEC corporate systems will provide FTEG personnel with faster, open, reliable, portable, and much larger data processing capabilities. If the system is not expanded, managers and engineers will not receive their data in a timely manner, thus delaying test programs and aviation projects.

000507

CAPITAL PURCHASES JUSTIFICATION
(Dollars in Thousands)

A. FY 1996/1997 BIENNIAL BUDGET

B. Department of the Navy/Research & Development

C. Silicon Graphics Workstation REPLACEMENT
LINE # AW7KL6502R

D. NAWC-AD

	FY 1993			FY 1994			FY 1995			FY 1996			FY 1997		
Element of Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost
Silicon Graphics Workstation													1	135	135
TOTAL														135	135

Narrative Justification:
OPERATIONAL DATE: May 1997

This procurement is for three to four UNIX based Silicon Graphics Indigo workstations with at least MIPS R4400 processors, 32 Megabytes (MB) of main memory, 24 bit 19 inch color displays, and 1.2 Gigabyta (GB) removable hard drives. Silicon Graphics equipment is required to maintain compatibility with existing hardware. The workstations will be used as clients for the Aircraft Conceptual Design Branch's current Silicon Graphics Crimson workstation, but will have enough capability to function as stand-alone computers for individual projects. All machines will be part of a local Ethernet network. This purchase is necessary to the aircraft Conceptual Design Branch to maintain its capabilities to perform computer-aided design and modeling, Radar Cross section (RCS) signature analysis, aerodynamic analysis, weights analysis, and performance analysis.

COST BENEFIT ANALYSIS HAS BEEN PERFORMED WITH:

Payback Period = 1.5 years
Return on Investment (ROI) = 59%
Average Annual Savings = $80K

Economic Analysis Impact:

Failure to purchase this equipment will result in failure of the Aircraft Conceptual Design Branch to meet the needs of its customers in a cost effective, timely manner. This may result in the late completion of work, or the need to decline work due to lack of adequate resources.

000508

CAPITAL PURCHASES JUSTIFICATION
(Dollars in Thousands)

A. FY 1996/1997 BIENNIAL BUDGET

B. Department of the Navy/Research & Development

C. Silicon Graphics Upgrades
REPLACEMENT
LINE # AW7KL7510R

D. NAWC-AD

Element of Cost	FY 1993 Qty	FY 1993 Unit Cost	FY 1993 Total Cost	FY 1994 Qty	FY 1994 Unit Cost	FY 1994 Total Cost	FY 1995 Qty	FY 1995 Unit Cost	FY 1995 Total Cost	FY 1996 Qty	FY 1996 Unit Cost	FY 1996 Total Cost	FY 1997 Qty	FY 1997 Unit Cost	FY 1997 Total Cost
Silicon Graphics Upgrades													1	115	115
TOTAL														115	115

Narrative Justification:
OPERATIONAL DATE: May 1997

This equipment will provide the required technology upgrades to existing silicon graphics workstations. These upgrades will consist of two types of components; (a) processor/bus update to increase speed of control and data processing and (b) display/video upgrades to provide wide band data display/compression and formatting.

These upgrades will bring older technology up to current levels of capability and performance. They will offer 30% productivity improvements in laboratory utilization. The reduction in power and cooling is 15% annually and the maintenance savings will be 35% annually.

Currently, system operators must work double shifts during the test to process the data required for report generation. Assuming a test duration of one week and two engineers running the data acquisition and display system for a double shift, then 20 man weeks of effort ($55K) would be required to process the data each year (using our 5 tests per year average). With the ADAPS, the same data could be processed in a single shift.

COST BENEFIT ANALYSIS HAS BEEN PERFORMED WITH:
Payback Period = 2.8 years
Return on Investment (ROI) = 32%
Average Annual Savings = $37K

Economic Analysis Impact:
Failure to purchase a new acoustic data acquisition and processing system will cause significant delays in the life cycle of the aforementioned sensor programs. It should also be noted that the existing systems are nearing the end of their useful lives. These systems are of an older architecture that is rapidly becoming obsolete as advances in digital signal processing hardware technologies continue to soar. Furthermore, these systems are difficult to transport and are particularly difficult for aircraft installations for testing in the field. All of these factors add up to a growing reliability problem with the existing systems. System failures during on-station testing are common and very costly to the sensor programs. Therefore, the acquisition of the ADAPS is critical for the continued success of these acoustic sensor programs in FY97 and beyond.

CAPITAL PURCHASES JUSTIFICATION
(Dollars in Thousands)

A. FY 1996/1997 BIENNIAL BUDGET

B. Department of the Navy/Research & Development

C. Electronic Systems Department Productivity
LINE # AX6KL0011P

D. NAWC-AD

	FY 1993			FY 1994			FY 1995			FY 1996			FY 1997		
Element of Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost
Electronic Systems Department										1	400	400			
TOTAL												400			

Narrative Justification:
Operational Date: November 1997

The Electronic Systems Department (SY100) consists of various labortories, each consisting of minicomputers, workstations, personal computers, file servers, peripherals, software, and data bases all connected to various computer networks. This submission is the first phase of a planned three year effort of approximately $400K/year. The goal of this procurement is to continually increase capabilitities and enhance features of the laboratories so that department personnel can provide increased services to customers providing test and evaluation results in a timely manner with greater accuracy.

This ADP hardware provides increased capabilities in test and evaluation of radar, communications, antenna, and combat identification systems. A UNIX minicomputer provides increased processing speeds to perform complex queries of large test data bases more efficiently utilizing department personnel. Equipment controllers allow for the automation of currently manual test procedures decreasing total test time and increasing engineer productivity. Data bus interfaces enable laboratories to receive/transmit and decode messages directly from data busses. This enables efficient evaluation of current high technologically state of the art avionic systems.

Payback Period: 4.2 years
Return on Investment: 23%
Averge Annual Savings: $92K

Economic Analysis Impact:

This input is being submitted based on the concept that planning for future continuous improvement is essential. The Electronic Systems Department (SY100) laboratories are currently operational and utilized. Expanding capabilities and enhancing features of laboratories will produce greater productivity of employees and provide increased services to our customers. If no additional capabilities are added and enhancements incorported the laboratories will eventually become obsolete and test and evaluation services for radars, antennas, communication equipments, and combat identification systems will be degraded.

000510

CAPITAL PURCHASES JUSTIFICATION
(Dollars in Thousands)

A. FY 1996/1997 BIENNIAL BUDGET

B. Department of the Navy/Research & Development

C. ADP & Telecommunications Equipment (<$100,000)
LINE # NKT0000

D. NAWC

Element of Cost	FY 1993 Qty	FY 1993 Unit Cost	FY 1993 Total Cost	FY 1994 Qty	FY 1994 Unit Cost	FY 1994 Total Cost	FY 1995 Qty	FY 1995 Unit Cost	FY 1995 Total Cost	FY 1996 Qty	FY 1996 Unit Cost	FY 1996 Total Cost	FY 1997 Qty	FY 1997 Unit Cost	FY 1997 Total Cost
Aircraft Division												1,227			2,567
Weapons Division												1,793			2,809
TOTAL												3,020			5,376

Narrative Justification:

See Attached.

000511

CAPITAL PURCHASES JUSTIFICATION
NAVAL AIR WARFARE CENTER
ATTACHMENT FOR 9B EXHIBIT
NKT0000 ADP & TELECOMMUNICATIONS EQUPMENT (<$100,000)
($ in Thousands)

LINE #		DESCRIPTION	FY96	FY97
		AIRCRAFT DIVISION		
A A 6	KS0000	MISCELLANEOUS EQUIPMENT	226	27
A X 6	KS0009P	DIGITAL PHOTOGRAPHIC DARKROOM	99	
A X 6	KS0010R	NONLINEAR VIDEO EDITOR	99	
A L 6	KS0003R	VAX 7610 UPGRADE	95	
A L 6	KS0008R	OPTICAL SCANNING SYSTEM	90	
A I 6	KS5702R	AOI VRS	80	
A I 6	KS6101R	MEMORY UPGRADE (MMIS)	79	75
A L 6	KS0005R	DISK DRIVES	75	
A W 6	KS5407R	HP 35565 SPECTRUM ANALYZER	74	
A L 6	KS0006R	3D ICE ACCRETE MODELING	70	
A L 6	KS0007R	CFD MODEL SYSTEM	70	
A L 6	SS0003R	RELATIONAL DATA BASE SYSTEM UPGRADE	60	
A L 6	KS0002R	ENGINEERING WORKSTATION (SPARC)	60	
A W 6	KS7304R	SUN COMPUTER SYSTEM	50	
A W 7	KS1310R	COMPUTER WORKSTATIONS (21)		1,800
A A 7	KS0000	MISCELLANEOUS EQUIPMENT		256
A X 7	KS0023N	SILICON GRAPHICS ONYX WORKSTATION		99
A L 7	KS0005R	DISK DRIVES		80
A L 7	SS0001R	ORACLE UPGRADE		70
A W 7	KS7304R	TAC-5		60
A W 7	KS7306R	SUN COMPUTER STATION		50
A L 7	SS0003R	UNIX OPERATIONS SYSTEM - VAX		50
AIRCRAFT DIVISION ADP & TELECOM (<$100,000)			1,227	2,567

CAPITAL PURCHASES JUSTIFICATION

NAVAL AIR WARFARE CENTER

ATTACHMENT FOR 9B EXHIBIT

NKT0000 ADP & TELECOMMUNICATIONS EQUPMENT (<$100,000)

($ in Thousands)

LINE #	DESCRIPTION	FY96	FY97
	WEAPONS DIVISION		
W C 6 KS1516	Workstations (20)	928	683
W P 6 SS5052	Off-the-Shelf Software	225	500
W C 6 KS1517	Digital Storage Units	184	713
W C 6 KS1518	Servers	172	237
W C 5 KS1505	HR LAN Phases	77	77
W P 5 TS5043	Secure Lab Network	75	80
W W 6 KS0000	Miscellaneous Equipment	72	
W C 6 KS1519	BOMEM Upgrade Spectrometer	60	
W C 7 KS1522	CIL System Upgrades		295
W C 7 KS1521	Scanners		150
W P 5 KS5046	NAWC Comptroller Management System		74
WEAPONS DIVISION ADP & TELECOMM (<$100,000)		1,793	2,809

CAPITAL PURCHASES JUSTIFICATION
(Dollars in Thousands)

A. FY 1996/1997 BIENNIAL BUDGET

B. Department of the Navy/Research & Development

C. ANALYST WORKBENCH (AWB) DEVELOPMENT REPLACEMENT
LINE # WC4DL0097R

D. NAWC-WD

	FY 1993			FY 1994			FY 1995			FY 1996			FY 1997		
Element of Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost
Hardware										1	70	70	1	70	70
Software										1	415	415	1	465	465
Installation															
Other										1	10	10		10	10
TOTAL											495	495		545	545

Narrative Justification:
OPERATIONAL DATE: December 1995

DESCRIPTION: The Analyst's Workbench (AWB) is a framework for the interactive application of computer models and analysis tools. It allows the analyst to step through complex scenarios, pausing at times, or events, to utilize a variety of analysis tools and models. The AWB provides the user the capability to document analyses to presentations or documents. It is currently aimed at the Strike, War at Sea, and Air-to-Air warfare areas. Although the AWB was originally developed for use by analysts in NAWCWPNS Weapons Planning Group, there are requests from several other potential AWB users and model developers for a wide spectrum of applications.

For FY 1995 the following tasks are to be completed:
The primary task will be to cross platform the AWB onto several UNIX based engineering workstations. Software required to do this is being released by third party vendors in early FY94. With this software we will be able to host the AWB on the following platforms: Sun Sparc Station, IBM Power PC, HP, Silicon Graphics Indigo.

We will also implement access to various standard data bases in the AWB. This will include Digital Chart of the World produced by the Defense Mapping Agency (DMA) available on CD ROM.

The impact of not continuing the funding of AWB will be that capabilities to the AWB will not be added which will allow flexibility of the system. Additionally, there will be several levels of productivity enhancements that will be bypassed.

COST BENEFIT ANALYSIS HAS BEEN PERFORMED WITH:

Payback Period = 1.3 years
Return on Investment (ROI) = 66%
Internal Rate of Return = 67%
Average Annual Savings = $1,130K beginning in FY96

CAPITAL PURCHASES JUSTIFICATION
(Dollars in Thousands)

A. FY 1996/1997 BIENNIAL BUDGET

B. Department of the Navy/Research & Development

C. SMS 3rd/4th Platform Productivity
LINE # AX5DL0032P

D. NAWC

	FY 1993			FY 1994			FY 1995			FY 1996			FY 1997		
Element of Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost
SMS 3rd/4th Platform										1	50	50	1	200	200
TOTAL												50			200

Narrative Justification:
Operational Date: December 1995

This system consists of developmental software, computer peripherals, interface cables between aircraft 1553 and 1760 multiplex busses, and computer data acquisition software and hardware. The system will be housed in an existing mobile test station unit. The planned effor will be implemented in three phases. The first phase will provide a means for stimulating the avionics in the F/A-18 aircraft into sensing that the aircraft is in flight. This will allow more complete aircraft system testing for ordnance systems scheduled to be cleared on the F/.A-18 aircraft. It will also facilitate aircraft ordnance system testing deemed necessary from fleet requests. The plan for FY95 is to begin expansion software development to include smart aircraft ordnance systems in the F/A 18 C/D, and simulation stimulation software for AV-8B, F-14D, and F/A 18 E/F, and expand data acquisition libraries for the F/A 18 C/D.

The operational flight program performs significantly different on the ground than it does during flight. The 3rd and 4th platform will provide the following capability for the added aircraft system platforms: (1) analyze the compatibility of the interface cables between aircraft and stores, (2) identify armament system lockouts for mixed store loadings, (3) provide test access to armament system functional components and other aircraft systems and interfaces (such as monitoring buss traffic and break out signals for analysis, (4) determine the functional sequence and operational description to allow for proper control, release, and use of store combinations, and (5) conduct pre-flight weapon system evaluation and post-flight trouble investigations and engineering integration problems.

These enahnced capabilities will provide early identification of safety hazards and operational faults on the ground, therefore eventually providing great savings in flight hour and man-hour cost per year. This will be an important asset in the coming years of shrinking budgets.

COST BENEFIT ANALYSIS HAS BEEN PERFORMED WITH:

Payback Period: 1.5 years
Return on Investment: 57%
Average Annual Savings: $199K

Economic Analysis Impact:

If this purchase is not made it will result in a lesser test and evaluation capability at a higher cost to sponsors. More actual flight test will be required in order to test new systems, therefore more funds will be requested from sponsors, which will render us unable to offer more competitive prices in an extremely competitive market.

000515

CAPITAL PURCHASES JUSTIFICATION
(Dollars in Thousands)

A. FY 1996/1997 BIENNIAL BUDGET

B. Department of the Navy/Research & Development

C. Minor Construction (<$300,000)

LINE # NMC0000

D. NAWC

	FY 1993			FY 1994			FY 1995			FY 1996			FY 1997		
Element of Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost
Aircraft Division												2,012			2,339
Weapons Division												3,000			2,400
TOTAL												5,012			4,739

Narrative Justification:

See Attached.

000516

CAPITAL PURCHASES JUSTIFICATION
NAVAL AIR WARFARE CENTER
ATTACHMENT FOR 9B EXHIBIT
NMC0000 MINOR CONSTRUCTION (<$300,000)
($ IN THOUSANDS)

LINE #		DESCRIPTION	FY96	FY97
		AIRCRAFT DIVISION		
A I 6	MC0000	WAREHOUSE FOR DESC PULLOUT	295	
A X 6	MC0012	SUPPORT SYSTEM ENGINEERING FACILITY	294	
A X 6	MC0066	RELOCATABLE SITE NEAR HANGAR 2133	200	
A X 6	MC0065	TACAMO R&D SUPPORT BUILDING	198	
A S 6	MC0003	B-133 ADDITION (SEC OFFICE EXPANSION)	150	
A S 6	MC0002	B-185 (DIRECT DIGITAL CONTROL SYS BLDG)	140	
A I 6	MC0000	RENOVATE B/2000	125	
A L 6	MC0002	LIGHTS - VARIOUS PARKING LOTS	100	
A L 6	MC0003	ALTERATIONS SUBSTATION 1&2	100	
A X 6	MC0064	ADDITION ATEF FACILITY 1669	80	
A I 6	MC0000	RENOVATION/EXPANSION OF B/2000 LOBBY	80	
A S 6	MC0001	EXERCISE/BIKE TRAIL	80	
A X 6	MC0063	ALTER MECH & NIGHT VISION LAB HANGAR 111	70	
A L 6	MC0001	ENTRANCE - CONTRACTS OFFICE	50	
A L 6	MC0004	INSTALL ELECTRIC WATER PUMP	50	
A X 7	MC0071	MINOR MILCON FOR CASS		299
A I 7	MC0000	COURTYARD RENOVATION		250
A S 7	MC0035	COMMAND FITNESS CENTER		240
A X 7	MC0069	GSE STORAGE/MAINTENANCE FACILITY		200
A X 7	MC0068	LUBRICANT/VAN STORAGE BUILDING		195
A X 7	MC0067	GSE SERVICING & ISSUING FACILITY		190
A S 7	MC0002	B-8 LAB EXPANSION		180
A L 7	MC0002	INSTALL GRINDER		175
A I 7	MC0000	HANDICAP ENTRANCE MAIN BUILDING		150
A S 7	MC0001	B-134 ALTERATIONS TO SUPPORT AEGIS		150
A L 7	MC0001	PARKING LOT LIGHTS		125
A X 7	MC0070	BUILD ORDNANCE ROAD NEAR FACILITY 17		85
A I 7	MC0000	AUDITORIUM MODERNIZATION		50
A I 7	MC0000	NEW CORPORATE SIGN		50
AIRCRAFT DIVISION MINOR CONSTRUCTION (<$300,000)			2,012	2,339

CAPITAL PURCHASES JUSTIFICATION
NAVAL AIR WARFARE CENTER
ATTACHMENT FOR 9B EXHIBIT
NMC0000 MINOR CONSTRUCTION (<$300,000)
($ IN THOUSANDS)

LINE #	DESCRIPTION	FY96	FY97
	WEAPONS DIVISION		
W P 6 MC0000	CONSTRUCT WATER TANK NEAR BLDG 13	300	
W C 6 MC0000	WIDEN INYOKERN ROAD	300	
W P 6 MC0000	REMOVE SEAWALL NEAR B-51	300	
W W 6 MC0000	MISCELLANEOUS EQUIPMENT	263	
W P 6 MC0000	ADDITION TO SECURITY BLDG 3	198	
W C 6 MC0000	PROVIDE TRAFFIC SIGNAL BLANDY & KNOX	196	
W C 6 MC0000	TEST PAD RENOVATION	160	
W S 6 MC0000	BLAST WALL FOR WATER TANK	160	
W P 6 MC0000	REHAB COMPTROLLER WORK SPACE	140	
W C 6 MC0000	CONTROL ROOM	130	
W C 6 MC0000	LIGHTING FOR M/L PARKING AREAS	100	
W C 6 MC0000	LIGHTING FOR L/L PARKING AREAS	100	
W P 6 MC0000	SECURE CONFERENCE CENTER, BLDG 761	75	
W P 6 MC0000	STRONG ROOM BLDG 761	75	
W C 6 MC0000	INSTALL AIRFIELD SECURITY MEASURES	75	
W P 6 MC0000	CONSTRUCT (MODULAR) ATS LAB	74	
W P 6 MC0000	REPAIR/INSTALL STREET LIGHTS	70	
W P 6 MC0000	SECONDARY CONTAIN FOR TANK, SNI	65	
W S 6 MC0000	N-61 FIRE DETECTION & SUPPRESSION	60	
W C 6 MC0000	CONSTRUCT READY SERVICE MAGAZINE	59	
W P 6 MC0000	WHEELCHAIR LIFT, BLDG 3015	50	
W P 6 MC0000	MECH SUPPT EQUIP FACILITY UPGRADE	50	
W C 7 MC0000	IRRIGATE BY RECLAIMED WATER NEX GAS		250
W C 7 MC0000	OIL/WATER SEPARATOR (VARIOUS)		190
W C 7 MC0000	PURCHASE & INSTALL FUEL TANK (SITE WORK)		150
W C 7 MC0000	REPLACE UNDERGROUND GAS TANK		150
W C 7 MC0000	EXPAND COMPUTER ROOM		150
W S 7 MC0000	SULF SITE FENCE, WHITE SANDS		145
W C 7 MC0000	NITROGEN DISTRIBUTION SYSTEM		140
W P 7 MC0000	DISPATCH OFFICE, NEAR BLDG 674		100
W C 7 MC0000	GUN SYSTEM STORAGE		100
W P 7 MC0000	CONSTRUCT REMOTE MONITORING SYSTEM		100
W C 7 MC0000	CONTROL ROOM FOR FLUID ENERGY MILL		100
W C 7 MC0000	RENOVATE CHEM ROOM		100
W C 7 MC0000	MODIFY COMPUTER ROOM		90

CAPITAL PURCHASES JUSTIFICATION
NAVAL AIR WARFARE CENTER
ATTACHMENT FOR 9B EXHIBIT
NMC0000 MINOR CONSTRUCTION (<$300,000)
($ IN THOUSANDS)

LINE #	DESCRIPTION	FY96	FY97
	WEAPONS DIVISION		
W C 7 MC0000	INSTALL SAND SEPARATORS ON WELLS #15 & #27		90
W C 7 MC0000	CONSTRUCT HANDICAP RAMPS (VARIOUS)		90
W C 7 MC0000	RELOCATE TM TOWER		75
W C 7 MC0000	MODIFY ROOM 1000D, BLDG. 5		75
W C 7 MC0000	CORRECT FRESH AIR IN B-24A		60
W C 7 MC0000	ALT TO CURATION FACILITY		50
W P 7 MC0000	CONSTRUCT ELEVATOR MOCK-UP		50
W P 7 MC0000	N-100 OVERHEAD HOIST		50
W C 7 MC0000	MATERIAL TOOL ROOM FACILITY		50
W W 7 MC0000	MISCELLANEOUS EQUIPMENT		45
WEAPONS DIVISION MINOR CONSTRUCTION (<$300,000)		3,000	2,400

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission: FY 1996/1997 Biennial Budget Estimate								
B. Component/Business Area/Date: DoN/R&D				C. Line No. & Item Description: L002 INTRUSION DETECTION SYSTEM						D. Activity Identification: NUWC DIVISION, NEWPORT		
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
Intrusion Detection System									363			

Narrative Justification:

The Intrusion Detection System (IDS) is an integrated security management system which will be installed throughout the Naval Undersea Warfare Center (NUWC) Division, Newport. The system is a computerized, menu driven alarm and access control monitoring system which will reduce/replace the contractor guard force personnel and meet the minimum physical security requirements specified in OPNAVINST 5530.14B. The system is capable for handling 258 card readers, 21,000 cardholders, and 64 access groups to provide superior protection of restricted areas. The system can also be used to monitor over 2,000 alarms or environmental sensors for building management control. In addition, closed circuit television will be installed to monitor activity at strategic locations throughout the Division.

Without the Intrusion Detection System (IDS), NUWC Division, Newport cannot attain an improved security posture and make significant reductions in overhead costs. This system will provide improved access control, intrusion detection, surveillance and record keeping that is essential to the protection of NUWC resources. After hours security inspections by contractor guards would continue to be totally reliant on on-site personnel rather than IDS support.

The installation of IDS will result in substantial cost savings to NUWC by dramatically reducing the need for guard force services at remote locations. An economic analysis was performed indicating a savings/investment ratio of 1.09 and an annual cost savings of $ 172K.

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY 1996/1997 Biennial Budget Estimate								
B. Component/Business Area/Date DoN/R&D				C. Line No. & Item Description L083 ELECTROMAGNETIC COMPATIBILITY (EMC) TECHNOLOGY LAB					D. Activity Identification NUWC DIVISION, NEWPORT			
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
EMC Laboratory									391			200

Narrative Justification:

One of the leadership areas of the Naval Undersea Warfare Center is Submarine Electromagnetic Systems. To fulfill our mission, Newport Division has become preeminent in many key disciplines. These Navy unique scientific and technical areas constitute the Division Spheres of Excellence. One of our areas of expertise under the Spheres of Excellence is Submarine Electromagnetics, Antennas, Electro-Optics and Communications. NUWC was recently assigned by NAVSEA the management of all submarine EMI and EMC issues.

The Electromagnetic Compatibility Technology Lab will provide the necessary equipment for testing in support of the design and development of future EMC systems. The next generation submarine will require all systems to be smaller, more efficient, less expensive, and more user friendly. The EMC Technology Lab will provide the facility to ensure that future EMC systems will meet these requirements. This lab will provide the ability to assess COTS/NDI impact on future submarines electromagnetic systems.

Without this lab, future EMC systems can not be tested for compliance with the required accuracy. This laboratory will provide the facility to assure that lessons learned from passed EMC systems with EMI will not occur with future systems. The problems with EMI tend to increase with the increased use of COTS/NDI. The EMC Laboratory will provide the equipment for solving EMI problems and testing EMC systems during the design phase, and prior to installation.

000524

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY 1996/1997 Biennial Budget Estimate								
B. Component/Business Area/Date DoN/R&D				C. Line No. & Item Description L112 Consolidation Automated Support Station (CASS) Electro-Optical Station					D. Activity Identification NUWC DIVISION, KEYPORT			
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
Consolidation Automated Support Station (CASS)							1	2286	2286	1	1214	1214

Narrative Justification:

This test station will replace one of the current HP 9500 test systems, some of which are 18 years old. CASS has been designated as the Navy standard for automated test equipment. The EO station will support testing of electronic countermeasures, electronic counter-counter measures and fire control radar. Use of standard automated test equipment will save software generation, training documentation and improved supply support.

000522

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY 1996/1997 Biennial Budget Estimate								
B. Component/Business Area/Date DoN/R&D				C. Line No. & Item Description L114 NITRIDING FURNACE SYSTEM						D. Activity Identification NUWC DIVISION, KEYPORT		
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
Nitriding Furnace System										1	300	300

Narrative Justification:

Furnace system capable of multifaceted heat treatment processing on components, weldments, and assemblies that require nitriding, precipitation hardening, or tempering. Presently NUWC, Keyport does not have the capability for nitriding or bright tempering. We presently contract out all of the nitriding work. We have one job in particular that we contract out Nitriding Process. This is the MK50 REXTORP. There are only tow companies in the United States that are licensed to perform this process. They are located in Chicago and Cleveland. This results in high costs for shipping and long delays in delivery. Having the capability to perform NITROTEC will also allow for a smooth flow of units. We are anticipating 350 units for service of this system soon.

Procurement and installation of a vacuum Nitriding Furnace System would allow NUWC, Keyport to obtain a license to perform the patented NITROTEC Process and eliminate the costly delays of shipping. The versatility would also allow replacement of existing equipment used on related processes.

0005523

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY 1996/1997 Biennial Budget Estimate								
B. Component/Business Area/Date DoN/R&D				C. Line No. & Item Description L115 GEAR GRINDER					D. Activity Identification NUWC DIVISION, KEYPORT			
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
Gear Grinder										1	250	250

Narrative Justification:

To procure a new CNC Gear Grinder for the capacity of Class 12 to 15 Gears and to improve quality, eliminate scrap, and increase productivity. In gear making operations this machine will expand the NUWC, Keyport gear manufacturing capabilities from class 12 to 15 gears. Supply Center has asked us to manufacture Gears for their rebuild/replacement program.

The new machine is needed for the production of a large variety and size of gears for MK 48 Torpedo, MK 46 Torpedo, and sonar systems. The upgrade to Computerized Numerical Control Technology will reduce set-up and machining time with greater accuracy and the ability to machine more complex gears. The result will be a better product at lower cost.

000524

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY 1996/1997 Biennial Budget Estimate								
B. Component/Business Area/Date DoN/R&D				C. Line No. & Item Description L166 PRODUCTIVITY NON ADP MINOR					D. Activity Identification NUWC DIVISION, NPT/KPT			
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
Productivity Non ADP Minor							19		1767	17		1624

Narrative Justification:

For the period FY94 to FY97, NUWC will require minor Non-ADP equipment to increase the productivity of research, development, test and evaluation in the mission area.

000525

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY 1996/1997 Biennial Budget Estimate								
B. Component/Business Area/Date DoN/R&D				C. Line No. & Item Description L085 COMMS LABORATORY UPGRADE					D. Activity Identification NUWC DIVISION, NEWPORT			
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
COMMS Laboratory Upgrade												250

Narrative Justification:

One of the leadership areas of the Naval Undersea Warfare Center is submarine onboard communication systems and nodes. Specifically, NUWC leadership responsibilities are to ensure the Submarine Communications Support System (SCSS) meets submarine mission requirements and platform constraints. NUWC integrates the standard SCSS design into each submarine class and has the following responsibilities for the SCSS: submarine specific missions, platform, and operability requirements; physical system (shipboard configuration) design; interfaces between the SCSS and the platform; submarine antenna systems; subsystems, hardware, and supporting software required to perform submarine unique functions; system integration and testing of physical subsystems and components, including certification with the submarine combat system; at-sea prototyping, developmental testing and technical evaluation of the shipboard configuration of the SCSS; and system-wide Technical Direction Agent (TDA).

The Submarine Electromagnetic and Communications Department at the Naval Undersea Warfare Center Newport Division is the world leader in submarine communication systems. Through the use of advanced technologies, the Department is able to pursue research in submarine communications to fulfill the center mission. The COMMS Lab Upgrade will provide the necessary equipment for the research and development of future communication systems to meet the submarine roles and missions and fulfill communication leadership responsibilities.

000526

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY 1996/1997 Biennial Budget Estimate								
B. Component/Business Area/Date DoN/R&D				C. Line No. & Item Description L116 ELECTRODISCHARGE MACHINE					D. Activity Identification NUWC DIVISION, KEYPORT			
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
Electrodischarge Machine							1	250	250			

Narrative Justification:

Electrical Discharge Machines are a way of manufacturing specialty parts by sending current through an electrode in the shape of the part needed to manufacture. This existing machine is 30 years old (16 years past its life expectancy) and is not a candidate for rebuild or overhaul. the manufacturer of this machine has gone out of business and replacement parts are difficult to obtain. The new machine will be utilized for parts that we are presently unable to manufacture and is capable of holding tighter tolerances.

Machining with the EDM is a fast, economical method of producing a vast variety of tools, dies, and molds essential to Keyport's needs. This machine would enhance the manufacturing support for all undersea warfare programs at Keyport. It would replace obsolete methods of manufacturing, resulting in faster delivery time and reduce costs. The speed, accuracy and flexibility provides the greatest economy of work piece production in the industry today. Complex dies normally requiring days of tedious craftsmanship can be produced in hours. The EDM machining concept is also environmentally friendly, since it uses plain water as a flushing medium.

00527

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY 1996/1997 Biennial Budget Estimate								
B. Component/Business Area/Date DoN/R&D				C. Line No. & Item Description L117 INDEX GSC BAR & CHUCKER MACHINE					D. Activity Identification NUWC DIVISION, KEYPORT			
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
Index GSC Bar & Chucker Machine										1	650	650

Narrative Justification:

The existing machine cannot hold tight tolerances and must be run at a lower capacity and under constant supervision. Machinists must take extreme care and skill to make sure production parts generated are within tolerance. Our manufacturing schedules must be worked around the low throughput of the existing machine. The new machine tools will reduce setup time and production time for manufacturing. Increased automation will enable less-skilled machinists to operate the machine.

825000

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY 1996/1997 Biennial Budget Estimate								
B. Component/Business Area/Date DoN/R&D				C. Line No. & Item Description L118 GEAR SHAPER					D. Activity Identification NUWC DIVISION, KEYPORT			
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
Gear Shaper										1	450	450

Narrative Justification:

This project will replace 2 older manually operated Gear Shapers with a new CNC Gear Shaper. This machine will expand the NUWC, Keyport gear manufacturing capabilities from 10 inch to 15.5 inch diameter gears in support of MK 48 Torpedo, MK 46 Torpedo, and sonar systems. Supply Center has asked us to manufacture gears for their rebuild/replacement program. Existing machines are worn to the point that accuracy and productivity are compromised.

The upgrade to Computerized Numerical Control Technology will reduce set-up and machining time with greater accuracy, reduced scrap and the ability to machine more complex gears. The result will be a better product at lower cost.

000529

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY 1996/1997 Biennial Budget Estimate								
B. Component/Business Area/Date DoN/R&D				C. Line No. & Item Description L119 CNC GEAR HOBBER						D. Activity Identification NUWC DIVISION, KEYPORT		
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
CNC Gear Hobber										1	495	495

Narrative Justification:

Procurement of a CNC Gear Hobber will replace two insupportable 40 year old manual gear hobbers, and will greatly increase our capacity to manufacture quality gears and gear shafts in support of undersea weapons. Our current CNC shaper can only fabricate parts up to 6" long. The hobber can be used to make parts up to 36" long, allowing much more flexibility for gear shaft or splined shaft combinations, which would help in maintaining this Center's readiness for future needs. The machine would allow Keyport to efficiently fabricate wider spectrum of parts within the MK 46, MK 48/ADCAP and MK 50 systems. Our existing machines are capable of producing up to Class 10 gear forms, where the proposed replacement hobber is capable of up to Class 12. Upgrading to CNC technology will also bring more repeatability and provide a more efficient fabrication process. Use of CNC equipment also allows less skilled machinists to produce quality parts.

000530

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission: FY 1996/1997 Biennial Budget Estimate								
B. Component/Business Area/Date: DoN/R&D				C. Line No. & Item Description: L120 MACHINING CENTER (VMC-150)						D. Activity Identification: NUWC DIVISION, KEYPORT		
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
Machining Center (VMC-150)										2	240	480

Narrative Justification:

Replacement of two vertical machining centers that are past their useful life. Replacement parts are difficult to obtain, causing downtime. These are general purpose machine tools used to support a number of USW manufacturing initiatives.

000234

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)	A. Budget Submission FY 1996/1997 Biennial Budget Estimate
B. Component/Business Area/Date DoN/R&D	C. Line No. & Item Description L167 REPLACEMENT NON-ADP MINOR
	D. Activity Identification NUWC DIVISION, NPT/KPT

	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
Replacement Non-ADP Minor							19		1559	13		1260

Narrative Justification:

During the period, FY94 to FY97, NUWC will require the replacement of outdated equipment in order to continue to fulfill the mission of the center. This equipment procurement falls under the CPP category of Non-ADP replacement minor.

000532

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)	A. Budget Submission FY 1996/1997 Biennial Budget Estimate
B. Component/Business Area/Date DoN/R&D	C. Line No. & Item Description L086 TRANSDUCER & HULL ARRAY LAB UPGRADE
	D. Activity Identification NUWC DIVISION, NEWPORT

	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
Transducer & Hull Array Laboratory Upgrade									440			480

Narrative Justification:

The Naval Undersea Warfare Center is responsible for work under its leadership areas of submarine combat systems and submarine sonar systems. To fulfill our mission, Newport Division has become preeminent in many key disciplines. These Navy unique scientific and technical areas constitute the Division Spheres of Excellence. One of the Division areas of expertise under the Spheres of Excellence is Acoustic Sensors, Transducers and Arrays. To continue this work and to fulfill the NUWC mission, the existing labratory must be updated.

NUWC must maintain its transducer technology expertise in order to provide the most advanced, compatible, efficient, and cost effective sensors for submarine systems of the future. The Transducer and Hull Array Lab is used for the design and development of transducers and arrays for future sonar systems. One part of this facility is a chemistry lab. Certification for hazardous materials and hazardous waste is required for the operation of the lab. Currently, to comply with state pollution requirements, this certification is performed by outside contractors. The upgrade to this lab will position NUWC as a site which can perform state certification for hazardous materials. The laboratory instruments used for certification are calibrated, and will be used for environmental analysis as well as on-going R&D tasks.

000533

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)													A. Budget Submission: FY 1996/1997 Biennial Budget Estimate
B. Component/Business Area/Date: DoN/R&D				C. Line No. & Item Description: L121 COOLING SYSTEM FOR ENVIRONMENTAL TEST FACILITIES									D. Activity Identification: NUWC DIVISION, KEYPORT
	FY 1994			FY 1995			FY 1996			FY 1997			
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	
Cooling System For Environmental Test Facilities							1	220	220				

Narrative Justification:

System cools water used for environmental testing back to ambient, allowing recycling. This saves demand on our existing aquifer and reduces our annual water expenses by $145K.

000534

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)	A. Budget Submission FY 1996/1997 Biennial Budget Estimate	
B. Component/Business Area/Date DoN/R&D	C. Line No. & Item Description L168 ENVIRONMENTAL NON-ADP MINOR	D. Activity Identification NUWC DIVISION, NPT/KPT

	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
Environmental Non-ADP Minor							3		285	4		371

Narrative Justification:

To comply with environmental regulations while fulfilling our mission, NUWC requires the procurement of Non-ADP minor environmental equipment.

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY 1996/1997 Biennial Budget Estimate								
B. Component/Business Area/Date DoN/R&D				C. Line No. & Item Description L013 SMALL LAUNCHER TEST FACILITY					D. Activity Identification NUWC DIVISION, NEWPORT			
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
Test Facility									200			

Narrative Justification:

The Launcher and Missile System Department of NUWC, Division Newport is responsible for the research and development of advanced submarine and surface ship weapon handling, launcher and missile technology. A major objective is to reduce the size and weight of launchers, while realizing maximum efficiency and safety.

The small launcher test facility will be developed to design, procure and install a facility for conducting test and evaluation of internal or external small launcher prototypes. The facility will be capable of providing either actual device or simulated launches at submergence depths. The facility will provide the means to compare performance of prototype systems, including acoustic signature.

A dedicated small launcher R&D facility is needed to support expanding work scope in both internal and external small launcher development. Utilizing the present Internal Auxiliary Launcher (IAL) facility, procured with FY86 Asset Capitalization Program funds, as a base, modifications will be made to enable the upgraded facility to provide the means to support testing of other internal type small launcher prototypes, as well as external small launcher prototypes. Included in the upgrade will be improved capabilities both from a facility standpoint and a data gathering standpoint.

This unique facility is the key element to conducting the required research and development regarding new small launchers for internal and external submarine applications. Additionally, this facility is an ideal size for conducting scale model tests of full size launchers. The present IAL facility provided a good start in adding the required small launcher testing capability at NUWC. The upgrade is required to add the capability of testing external small launcher prototypes and to improve the facility as an acoustic data gathering test bed. Without upgrading our present facility, future endeavors in support of internal small launchers will be severely hampered.

000536

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)													A. Budget Submission FY 1996/1997 Biennial Budget Estimate
B. Component/Business Area/Date DoN/R&D				C. Line No. & Item Description L087 TOWED & DEPLOYED SENSOR LAB UPGRADE									D. Activity Identification NUWC DIVISION, NEWPORT
	FY 1994			FY 1995			FY 1996			FY 1997			
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	
Sensor Laboratory Upgrade			-						275			300	

Narrative Justification:

The future of the Navy has shifted directions in the recent past, and the research being conducted at NUWC in submarine sensors is shifting to stay abreast with the new Navy direction. The future Naval missions are expected to be conducted in shallow littoral waters. This will require that new sensors be developed to meet the new challenges of this mission. Not only is the mission changing, but the budget is decreasing. This also adds to the challenges in sensor research.

The Towed and Deployed Sensor Lab Upgrade will help position NUWC to meet these new challenges. The lab will provide the capabilities necessary for designing ultra-thin, ultra compact acoustic arrays. These special size requirements must be met for shallow water missions. New sensors and arrays must be low cost, and expendable. This lab will enable researchers to guarantee that the future of submarine sensors will be low cost, as well as adaptable and common across platforms and missions. Finally, this lab upgrade will provide NUWC with the capability to conduct towed array laboratory testing while avoiding costly at-sea testing.

000537

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)													A. Budget Submission FY 1996/1997 Biennial Budget Estimate
B. Component/Business Area/Date DoN/R&D				C. Line No. & Item Description L088 STANDARD SUB RADIO ROOM (SSRR) INTEGRATION FACILITY									D. Activity Identification NUWC DIVISION, NEWPORT
	FY 1994			FY 1995			FY 1996			FY 1997			
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	
SSRR									375			350	

Narrative Justification:

The Naval Undersea Warfare Center assumes leadership in the area of Submarine Onboard Communication Systems and Nodes. This project will help to fulfill NUWC's responsibilities in this area. The Standard Submarine Radio Room (SSRR) Integration Facility will enable NUWC to perform Platform Integration System Engineering (PISE) for the submarine force and the Navy. PISE consists of the physical design and layout of the SSRR, the integration of the SSRR with other systems (e.g. Combat, Navigation, Antennas), and the development of submarine communication systems unique hardware and software. The SSRR is based on the Navy's Copernicus Communication Support System. Similar existing facilities can not be modified to handle future communication systems hardware and software requirements. The SSRR will benefit the submarine force and the Navy in terms of increased operational effectiveness and reduced procurement and life cycle cost for submarine communications.

NUWC leadership responsiblities for Submarine Communication are to ensure the Submarine Communication Support System meets submarine mission requirements and platform constraints. The SSRR will provide, as outlined in the master plan NUWC with the needed facility to accomplish its mission for communication systems for future submarines.

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY 1996/1997 Biennial Budget Estimate								
B. Component/Business Area/Date DoN/R&D				C. Line No. & Item Description L089 SUBMARINE IMAGE TRANSMISSION LAB					D. Activity Identification NUWC DIVISION, NEWPORT			
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
Sub Image Transmission Lab									450			

Narrative Justification:

The Naval Undersea Warfare Center provides leadership to the Navy in the area of Submarine Electro-Optics. The submarine image transmission laboratory will ensure that the Naval Undersea Warfare Center Newport Division is able to provide timely imagery data that is necessary to support submarine strike and surveillance missions. Current technology advances will be incorporated into the designs of the future submarine surveillance systems.

This laboratory will provide a unique imagery capability for submarine electro-optics research and development. Specifically, this lab will provide the Electromagnetic Systems Department with the capabilities to develop and support future advanced imagery acquisition, processing, display and transmission. It will also provide the needed resources for conducting research and development in advanced imagery bandwidth compression techniques, imagery enhancement techniques, usable motion video, techniques for automating document imaging and archiving, and advanced imagery database development and distribution capability.

000539

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY 1996/1997 Biennial Budget Estimate								
B. Component/Business Area/Date DoN/R&D				C. Line No. & Item Description L090 SUBMARINE SAIL MEASUREMENT PLATFORM					D. Activity Identification NUWC DIVISION, NEWPORT			
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
Sub Sail Measurement Platform									752			1000

Narrative Justification:

As an addition to the previously funded Submersible Sensor Test Platform (SSTP), the Naval Undersea Warfare Center Division Newport Submarine Electromagnetic Systems Department is developing the submarine sail measurement platform to measure antenna performance and radar cross section of full-scale sail, associated communications and Electronic warfare Support Measures (ESM) sensors, and stealth coatings.

This project allows the development of innovative, stealth sails for submarines which allows more effective connectivity and surveillance capability with reduced vulnerability in littoral waters. The measurement of antenna performance, satellite communications throughput, and radar cross section will all be achieved by this platform.

000540

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)	A. Budget Submission: FY 1996/1997 Biennial Budget Estimate
B. Component/Business Area/Date: DoN/R&D	C. Line No. & Item Description: L169 NEW MISSION NON-ADP MINOR
D. Activity Identification: NUWC DIVISION, NPT/KPT	

	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
New Mission Non-ADP Minor							8		1598	8		1292

Narrative Justification:

For the period FY94 to FY97, NUWC will require minor Non ADP equipment to increase its technical capability in the research, development, test & evaluation areas.

000541

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY 1996/1997 Biennial Budget Estimate								
B. Component/Business Area/Date DoN/R&D				C. Line No. & Item Description L061 UNDERSEA SYNTHETIC ENVIRONMENTS CONCEPT EVALUATION					D. Activity Identification NUWC DIVISION, NEWPORT			
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
Synthetic Environments Concept Evaluation									450			

Narrative Justification:

This facility will provide the Naval Undersea Warfare Center Division Newport with a test-bed simulator used for advanced submarine combat control systems studies in human factors, operability, performance, evaluation and attack center configurations. This hardware test-bed provides a state-of-the-art facility for rapid prototyping and dynamic evolution of innovative algorithms, information displays and operational concepts related to submarine attack center functions. The associated software environment incorporates sophisticated models of the ocean, ship and weapons kinematics and sensor systems so as to provide a realistic dynamically reconfigurable means of stimulation for the algorithms, information display and concepts under investigation.

Comprehensive specification of the next combat control system, requires that the capability be proven viable in an engineering sense prior to it being specified for performance proposed in a production contract. This test-bed will provide for rapid prototyping and dynamic evaluation of concepts as well as a mechanism for packaging and transfer of prototypes for at-sea evaluation. An economic analysis performed on this project indicates a savings/investment ratio of 1.83 with an annual cost savings of $284K.

000542

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)													A. Budget Submission: FY 1996/1997 Biennial Budget Estimate
B. Component/Business Area/Date: DoN/R&D				C. Line No. & Item Description: L069 Material Inventory Management Systems									D. Activity Identification: NUWC DIVISION, KEYPORT
	FY 1994			FY 1995			FY 1996			FY 1997			
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	
Material Inventory and Management Systems (MIMS)							1	173	173				

Narrative Justification:

Consolidates management of non-DBOF materials into one database. Enhances physical inventory and material tracking capabilities of part numbered and National Stock Numbered Items. MIMS is an enhancement of existing systems and the provisions for interface with existing material management systems to provide a standard interface for system users. MIMS was initiated as a cost savings measure for MILCON P-295, and will expand to other storerooms. MIMS will be implemented into a single storeroom in FY94 and expand to two additional areas during FY95.

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)							A. Budget Submission FY 1996/1997 Biennial Budget Estimate					
B. Component/Business Area/Date DoN/R&D				C. Line No. & Item Description L070 SHOP PROCESS AUTOMATION SYSTEM (DEPOT)			D. Activity Identification NUWC DIVISION, KEYPORT					
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
Shop Process Automation System (Depot)							1	185	185			

Narrative Justification:

Incorporates the features of the existing computer systems for MK 48/ADCAP and MK 46 which supports depot and IMA shop process accounting. The result is totally integrated shop floor control system. The benefits include elimination of duplicate data entry, common user training for IMA and depot, newer and more reliable hardware reducing downtime and improved user interface. FY94 SPAS project in support of MK 48/ADCAP, FY96 project in support of MK 46.

000544

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY 1996/1997 Biennial Budget Estimate								
B. Component/Business Area/Date DoN/R&D				C. Line No. & Item Description L123 COMPUTER AIDED PROCESS PLANNING					D. Activity Identification NUWC DIVISION, KEYPORT			
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
Computer Aided Process Planning							1	250	250			

Narrative Justification:

On-line development of operation process orders for Keyport shops. Provide on-line review of proposed procedures and standards by outside groups. Maintain historical records of all proposed and implemented procedural changes. Interface to other Flexible Computer Integrated Manufacturing (FCIM) modules on-line or being developed.

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY 1996/1997 Biennial Budget Estimate								
B. Component/Business Area/Date DoN/R&D				C. Line No. & Item Description L124 INTERACTIVE ELECTRONIC TECHNICAL MANUALS						D. Activity Identification NUWC DIVISION, KEYPORT		
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
Interactive Electronic Technical Manuals							1	200	200	1	45	45

Narrative Justification:

Equipment will provide us the capability to handle interactive electronic technical manuals for sonar and combat systems. As Technical Manual Management Activity for a variety of systems we are responsible for development, distribution and reproduction of technical manuals for systems installed in SSNs, SSBNs, shore sites, and trainers. Automation of these functions will reduce the cost per page and will allow NAVSEA to more move documentation workload from OEMs to NUWC.

000546

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission: FY 1996/1997 Biennial Budget Estimate								
B. Component/Business Area/Date: DoN/R&D				C. Line No. & Item Description: L125 HYDROGRAPHICS DYNAMIC SIMULATION SYSTEM					D. Activity Identification: NUWC DIVISION, KEYPORT			
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
Hydrographics Dynamic Simulation System							1	150	150			

Narrative Justification:

Enables Keyport to plan cable runs, hydrophone placement and buoy anchoring using computer-aided technology. Underwater cable runs can be displayed three-dimensionally for calculating total cable length and electrical resistance. Hydrophone towers can be relocated by computer to avoid local seafloor anomalies that may cause signal shadowing.

000547

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY 1996/1997 Biennial Budget Estimate								
B. Component/Business Area/Date DoN/R&D				C. Line No. & Item Description L126 KINEMATIC AND DYNAMIC ANALYSIS					D. Activity Identification NUWC DIVISION, KEYPORT			
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
Kinematic and Dynamic Analysis										1	75	75

Narrative Justification:

Develop and analyze the kinematic and dynamic movement of three-dimensional solid models utilizing computer-aided technology. The modeling and simulation software would provide the capability to analyze and dynamically view the interaction of mechanical assemblies to determine interference. Computer simulations allow us to determine potential interface during design phase, and without mock-ups, saving both time and development costs.

000548

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY 1996/1997 Biennial Budget Estimate								
B. Component/Business Area/Date DoN/R&D				C. Line No. & Item Description L127 FLUID FLOW ANALYSIS						D. Activity Identification NUWC DIVISION, KEYPORT		
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
Fluid Flow Analysis										1	75	75

Narrative Justification:

Fluid dynamic phenomena occurring in and around torpedo tube launchways causes mechanical damage to test vehicles and acoustic noise. The debugging of this interaction between launchers and new vehicles is extremely expensive for each new configuration. Computer simulation allows us to avoid much of the physical testing required. Heat transfer problems encountered in the packaging of electronics in pressure vessels is an interactive process where multiple modifications are required to adequately cool components. Computer simulation enables us to address potential "hot spots" during the design phase, saving both time and development costs.

000549

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY 1996/1997 Biennial Budget Estimate								
B. Component/Business Area/Date DoN/R&D				C. Line No. & Item Description L164 MANUFACTURING ENGINEERING TOOLING SYSTEM (METOOLS)					D. Activity Identification NUWC DIVISION, KEYPORT			
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
ENGINEERING TOOLING SYSTEM							1	500	500			

Narrative Justification:

The manufacturing engineering tooling system provides an on-line database for tracking, issuing, receiving and storing information concerning the various tools and fixtures needed in a manufacturing machine shop. This tooling and inventory management application (TIMA) will expedite jobs on both conventional and NC machine tools by providing up-to-date information during the pre-production process planning and NC programming stages of mechanical piece part manufacture. This project will integrate the Joint Logistics Services (JLSC)-recommended TIMA-Data Enterprises, with Intergraph CAD2 CAD/CAM systems.

Areas that received benefit are machine shop tools rooms by reducing inventory and labor costs, and improving repair , inventory and lost tool control. On-line access to tool information will also benefit the tool selection and tool kitting process of NC programming.

000550

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)	A. Budget Submission FY 1996/1997 Biennial Budget Estimate
B. Component/Business Area/Date DoN/R&D	C. Line No. & Item Description L170 PRODUCTIVITY ADP MINOR
	D. Activity Identification NUWC DIVISION, NPT/KPT

	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
Productivity ADP Minor							8		570	17		987

Narrative Justification:

For the period FY94 to FY97, NUWC will require minor Non ADP equipment to increase the productivity of research, development, test and evaluation.

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY 1996/1997 Biennial Budget Estimate								
B. Component/Business Area/Date DoN/R&D				C. Line No. & Item Description L030 REPLACEMENT OF CENTRAL SCIENTIFIC AND ENGINEERING COMPUTERS					D. Activity Identification NUWC DIVISION, NEWPORT			
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
Scientific and Engineering Computers									362			181

Narrative Justification:

The Computer and Information Services Department of the Naval Undersea Warfare Center (NUWC) Division, Newport provides central scientific and engineering computational services for the Newport and New London locations. By FY94, the current general purpose scientific and engineering computers will have an average installed age of 9 years. This places the equipment in its final phase of an anticipated 8-10 year life cycle. It is expected that as the equipment ages system reliability will decrease, system maintenance costs will increase, and system software will have reduced compatibility as newer versions fail to operate on the older equipment. Historically equipment maintenance costs increase rapidly during the final phases of the life cycle. Replacement of the obsolete computer equipment will provide the activity with more reliable and cost effective computer resources as well as ensuring that the department can provide adequate computational resources to meet the research and development computational requirements of the Division's scientific and engineering community.

If the equipment is not replaced, the Division can expect to incur rapidly escalating maintenance costs, loss of system productivity as system reliability decreases, loss of personnel productivity as new software productivity enhancements are available but are unable to function on the existing equipment, reduced services to the user community and technical obsolescence. Consequently, the Division will be unable to provide the necessary corporate computer resources necessary to meet the future research and development computational requirements of the scientific and engineering community.

0055S2

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY 1996/1997 Biennial Budget Estimate								
B. Component/Business Area/Date DoN/R&D				C. Line No. & Item Description L097 ANTENNA RANGE MODERNIZATION					D. Activity Identification NUWC DIVISION, NEWPORT			
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
Antenna Range Modernization									125			555

Narrative Justification:

The communication systems of future submarine depends on the research and development being performed at the Naval Undersea Warfare Center (NUWC) Division Newport by the Submarine Electromagnetic Systems Department. The Antenna Range Modernization project will provide the Department with the up-to-date facility for conducting this R &D as well as performing the testing required for these future systems.

The existing antenna range provides measurement capabilities including both free-space and seawater environments to support submarine antenna developments. The modernization of this range will provide the ability to test antennas over an increased portion of the spectrum required to support new submarine communication development.

Specifically, as enhancements to the existing system, Radio Frequency (RF) instrumentation and positioning equipment which is antiquated will be replaced in order to improve the measurement speed and accuracy of the data. Improved frequency and calibration capabilities to the Submersible Sensor Test Platform (SSTP) on Fisher's Island will be implemented. Additionally, this project will upgrade Fisher's Island site link in frequency range and automated data collection capabilities. Finally, the existing overwater arch elevation axis quickly failing mechanical components will be replaced. All of these improvements to the antenna range will enable NUWC Division Newport to maintain its high standard of RDT&E for the design and development of submarine communication systems of the future.

000553

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY 1996/1997 Biennial Budget Estimate								
B. Component/Business Area/Date DoN/R&D				C. Line No. & Item Description L064 NUWC Information Technology Improvement Program (NITIP)					D. Activity Identification NUWC DIVISION, NPT/KPT			
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
NITIP							1		520			

Narrative Justification:

The NUWC Information Technology Improvement Program (NITIP) is one of five programs comprising the NAVSEA Information Management Improvement program. The NITIP has the following objectives:

- Migrate from vendor-dependent sole source and other similar environments to Open Systems Environment (OSE)
- Provide increased capability for network-based computing solutions for the RDT&E community
- Lower the cost of NUWC's information technology environment
- Position NUWC IRM to support organizational restructuring and downsizing
- Standardize, where feasible and cost effective, in conjunction with Corporate Information Management (CIM) initiatives

The NITIP consists of five projects:

- Terminate Keyport Unisys mainframe operations
- Terminate Keyport NCR system operations
- Terminate Newport Unisys mainframe operations
- Terminate Keyport Bull/Honeywell mainframe operations
- Upgrade RDT&E computing/upgrade network capabilities

The first four projects outline a plan to migrate current applications from aging proprietary platforms to Open Systems Environment (OSE) and terminate existing mainframe operations. Applications that are unique to each NUWC division will be moved by that division into the OSE. Initially, to speed migration, applications that apply to functions common to the NUWC divisions will be moved into the OSE by the local division. Later, these applications will be evaluated for mutual use.

The fifth project addresses the need for the RDT&E community to take advantage of the price/performance improvements being offered by commercial hardware manufacturers, and complete the phase out of the mainframe computers by downsizing to powerful workstations supported by high speed file servers and networks that support higher speeds (e.g. Fiber Distributed Data Interface (FDDI)). Additionally, sufficient processing power on the users desktop computers also means that applications that once were the exclusive domain of the mainframe or departmental minicomputer can exist in a client/server environment. A key to successful implementation of this environment will be the migration of RDT&E capabilities to the open systems environment (OSE).

000554

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY 1996/1997 Biennial Budget Estimate								
B. Component/Business Area/Date DoN/R&D				C. Line No. & Item Description L098 FRONT END PROCESSING SYSTEM						D. Activity Identification NUWC DIVISION, NEWPORT		
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
Front End Processing Sys												740

Narrative Justification:

This project will provide additional computational power to the secure front-end of the Naval Undersea Warfare Center Division Newport scientific and engineering computer facility. As the need for secure processing increases it is necessary to add additional or replacement processors on the front-end machines. The addition of processors in this fashion will serve to enhance and centralize critical secure resources. The centralization of resources will serve to provide a greater capability than could be acquired individually, thus providing NUWC Division, Newport scientists and engineers with compute capability in-line with their emerging needs. Consolidation onto one system or cluster of systems will save overall hardware, software, and maintenance cost. Rather than have duplications in support personnel, one person will maintain the front-end.

As the existing secure front-ends become overloaded and antiquated, users will look for other machines or platforms to migrate their secure work to, when the need is present but the supply isn't. Sometimes actions which have no economic base are then put in action. The additional cost in security monitoring protection, etc. will be greater than one centralized secure front-end.

As NUWC Division, Newport continues to conduct advanced research and development in their mission area, the need for secure processing becomes more of a driving factor. This project will provide a cost effective method for providing the secure processing which will be needed for future undersea warfare systems development.

000555

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)	A. Budget Submission: FY 1996/1997 Biennial Budget Estimate	
B. Component/Business Area/Date: DoN/R&D	C. Line No. & Item Description: L147 MATERIAL CONTROL SYSTEM (MCS) REPLACEMENT	D. Activity Identification: NUWC DIVISION, KEYPORT

	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
Material Control System (MCS) Replacement							1	490	490	1	490	490

Narrative Justification:

This project will replace the current production planning and control system with a more efficient, capable, and integrable system. Our current system the Material Control System (MCS) was created in the 1970's. It goes down often, spare parts are hard to find, takes up a lot of space and requires a great deal of support. At our current workload level it takes a level of effort of approximately 140 contractor and civil service work years to operate, maintain and use MCS. We estimate the level of effort for the same workload to be 45 work years after implementation of the replacement system. The new system will also allow us to eventually integrate the production planning and control system with other information systems (i.e. the work-in-process inventory in the Automated Material Handling Facility, AMHF P-295, B.1002) and FCIM projects (i.e. Manufacturing Execution and Electronic Data Interchange).

000556

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)	A. Budget Submission FY 1996/1997 Biennial Budget Estimate
B. Component/Business Area/Date DoN/R&D	C. Line No. & Item Description L075 ATE SYSTEM UPGRADE
D. Activity Identification NUWC DIVISION, KEYPORT	

	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
ATE System Upgrade							1	150	150	1	150	150

Narrative Justification:

Replacement of low-reliability components for several depot Automated Test Equipment (ATE). These test systems support the MK 46 Torpedo, MK 48 Torpedo, MK 48 ADCAP, and various Combat Systems and Target programs. This will reduce our troubleshooting time from 9 hours/failure to 3 hours/failure. These delays affect our depot workloading and repair turnaround times.

255000

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY 1996/1997 Biennial Budget Estimate								
B. Component/Business Area/Date DoN/R&D				C. Line No. & Item Description L072 Computer Aided Manufacturing And Design					D. Activity Identification NUWC DIVISION, KEYPORT			
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
Computer Aided Manufacturing and Design							1	190	190	1	50	50

Narrative Justification:

CAD 2 CAD/CAM workstations in Engineering, Tool Design, and Numeric Control programming areas will allow an automated means of creating product and fixture tooling design along with the improvement of manufacture. Project includes additional networking and system support to establish a link to four numeric controlled machines via a Direct Numeric Control (DNC) system. The system will also connect to the Coordinate Measuring Machine (CAM) for inspection of products. Provides a unique and efficient communication environment for integrating several work areas in the manufacture of NUWC products. Benefits include reduced design-to-manufacture time and reduced setup times for machine tools.

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY 1996/1997 Biennial Budget Estimate								
B. Component/Business Area/Date DoN/R&D				C. Line No. & Item Description L129 REPLACE TEST AND EVALUATION SUPPORT AND ANOMALY CORRECTION SYSTEM					D. Activity Identification NUWC DIVISION, KEYPORT			
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
Replace T&E Support & Anomaly Correction System							1	120	120			

Narrative Justification:

The proofing analysis system provides engineers and analysis with the capability to interrogate data files containing run configuration and defect data. To maintain these capabilities, the current system requires modernization. Existing system is over 10 years and system (hardware and software) support is difficult to obtain.

000559

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)	A. Budget Submission: FY 1996/1997 Biennial Budget Estimate
B. Component/Business Area/Date: DoN/R&D	C. Line No. & Item Description: L130 FLEET OPERATIONAL SUPPORT DEPT PROGRAM MANAGEMENT SUPPORT
	D. Activity Identification: NUWC DIVISION, KEYPORT

	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
Fleet Operational Supt Dept Program Management Supt										1	190	190

Narrative Justification:

As a remote site the Hawaii Detachment office, geographic-unique requirements need to be supported, tracked, and maintained. These included equipment inventory, financial management, material procurement, logistics handling, documentation and other administrative related items. Also included is communication requirements between the two sites at Balboa and North Island. This computer system with its associated network provides this support to perform the daily management and production requirements.

000560

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)	A. Budget Submission FY 1996/1997 Biennial Budget Estimate
B. Component/Business Area/Date DoN/R&D	C. Line No. & Item Description L171 REPLACEMENT ADP MINOR
	D. Activity Identification NUWC DIVISION, NPT/KPT

	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
Replacement ADP Minor							13		1000	7		772

Narrative Justification:

For the period FY94 to FY97, NUWC will require minor ADP equipment to replace outdated and obsolete equipment.

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY 1996/1997 Biennial Budget Estimate								
B. Component/Business Area/Date DoN/R&D				C. Line No. & Item Description L023 UNDERSEA WARFARE SYSTEMS ANALYSIS PROJECT (UWSAP)					D. Activity Identification NUWC DIVISION, NEWPORT			
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
Analysis Project									725			800

Narrative Justification:

The research, development, and acquisition of naval warfare force ships and ship systems is being increasingly focused on their ability to support an effective U.S. maritime strategy. The rapidly changing world has dramatically changed the nature of the threat and the most likely types of conflicts. System acquisition and technology investment decisions must be carefully assessed in terms of these changes as well as in declining defense assets, the complex contribution of coordinated Naval assets, and the commitment to maintain technological superiority. Warfare Analysis plays a key role in terms of the identification of operational requirements, qualification of military shortfalls, cost benefit assessment of system alternatives, and formulation of effective investment strategies for systems acquisition and technology. The first step in conducting the required comprehensive warfare analysis was the Integrated Warfare Analysis Laboratory (IWAL) procured with capital funds in FY89-93. Additional requirements for human-in-the-loop training systems, real time distributed systems, and advanced methods for testing that combine computer simulation with on-range operations have been identified which require the further evolution to a distributed computing environment. The Undersea Warfare Systems Analysis Project (UWSAP) will provide this distributed computing environment, and provide:

- a massively parallel computer system capable of scalable growth
- neural net software / hardware coupled with artificial intelligence software that can generate and evaluate platform and force level tactics using the massively parallel computer faster and more exhaustively than currently possible
- software to begin restructuring current simulations to exploit parallel computers
- a means to more completely model environmental impact on forces

A scalable massively parallel computer system will provide the vehicle for significant improvements in simulation performance not possible with either serial or even vector (CRAY-type) processors. The Neural Net / Artificial Intelligence software coupled with parallel processors will permit the fast generation and evaluation of detailed platform level and force level tactics.

295000

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY 1996/1997 Biennial Budget Estimate								
B. Component/Business Area/Date DoN/R&D				C. Line No. & Item Description L107 WEAPONS SYSTEMS EQUIPMENT UPGRADES					D. Activity Identification NUWC DIVISION, NEWPORT			
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
Weapon Sys Equip Upgrades												700

Narrative Justification:

This equipment upgrade is required for the support of weapons analysis at the current level of technology. The Weapons Analysis Facility (WAF) at the Naval Undersea Warfare Center Division, Newport supports the design and development of weapon systems through hardware in the loop simulations. The WAF has proven to be one of the most significant productivity enhancements at NUWC Division Newport. The continued enhancement of systems in this laboratory system will ensure Division Newport's capability to stay current with the threat to the next century. The WAF is a unique, world class facility -- continued enhancement will ensure this position for many years. The system upgrade project will support the Division's initiatives in emerging technologies and provide technologies through which tools and applications may be developed to support more innovative and efficient analysis and development. Without the upgrade the opportunity to provide innovative, efficient resources for analysis and weapons engineers will be missed.

0005563

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY 1996/1997 Biennial Budget Estimate								
B. Component/Business Area/Date DoN/R&D				C. Line No. & Item Description L173 NEW MISSION ADP MINOR					D. Activity Identification NUWC DIVISION, NPT/KPT			
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
New Mission ADP Minor							14		925	7		510

Narrative Justification:

For the period FY94 to FY97, NUWC will require minor ADP equipment to increase its technical capability in the research, development, test and evaluation areas.

000564

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)													A. Budget Submission: FY 1996/1997 Biennial Budget Estimate
B. Component/Business Area/Date: DoN/R&D													C. Line No. & Item Description: L133 NETWORKING MANAGEMENT AND MONITORING
													D. Activity Identification: NUWC DIVISION, KEYPORT
	FY 1994			FY 1995			FY 1996			FY 1997			
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	
Networking Management and Monitoring							1	85	85				

Narrative Justification:

Provides this Center with the necessary equipment to effectively manage and monitor the network and IT infrastructure platforms. The tools enable Division personnel to quickly and accurately identify and resolve system problems. These tools include automated security management, performance monitoring, fault detection and configuration management.

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY 1996/1997 Biennial Budget Estimate								
B. Component/Business Area/Date DoN/R&D				C. Line No. & Item Description L174 TELECOMMUNICATIONS MINOR					D. Activity Identification NUWC DIVISION, NPT/KPT			
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
Telecommunications Minor							3		105			

Narrative Justification:

For the period FY94 to FY97, NUWC will require telecommunications equipment to meet new requirements for the Center.

000566

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)	A. Budget Submission FY 1996/1997 Biennial Budget Estimate
B. Component/Business Area/Date DoN/R&D	C. Line No. & Item Description L176 REPLACEMENT OTSS MINOR
	D. Activity Identification NUWC DIVISION, NPT/KPT

	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
Replacement OTSS Minor							2		170	2		150

Narrative Justification:

For the period FY94 to FY97, NUWC will require minor off-the-shelf-software to replace obsolete and outdated software.

000567

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY 1996/1997 Biennial Budget Estimate								
B. Component/Business Area/Date DoN/R&D				C. Line No. & Item Description L110 BLDG 123 EXPAND CRUISE MISSILE ASSEMBLY AND SUPPORT FACILITY					D. Activity Identification NUWC DIVISION, NEWPORT			
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
Bldg 123 Expansion									220			

Narrative Justification:

This project will construct an addition to building 123 -- the cruise missile building. The addition would be located on an existing platform located adjacent to the building. It will house those functions which already overflow the confines of building 123 and are conducted outdoors, weather permitting, on the existing platform.

000568

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY 1996/1997 Biennial Budget Estimate								
B. Component/Business Area/Date DoN/R&D				C. Line No. & Item Description L111 OTTO FUEL/ OIL STORAGE FACILITY					D. Activity Identification NUWC DIVISION, NEWPORT			
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
Otto Fuel Storage Fac												210

Narrative Justification:

The Propulsion Noise Test System (PNTS) has increased in size and capacity, and as a result, a need for a proper place to store Otto fuel has arisen. This project will provide a small building with all the required safe guards to store the Otto fuel used in the PNTS.

000569

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY 1996/1997 Biennial Budget Estimate								
B. Component/Business Area/Date DoN/R&D				C. Line No. & Item Description L165 NEW SANITARY SEWER TIE TO COUNTY					D. Activity Identification NUWC DIVISION, KEYPORT			
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
New Sanitary Sewer Tie To County, at Gate 3										1	300	300

Narrative Justification:

Eliminate pump stations and overloaded services, reducing energy and operating costs.

025000

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)	A. Budget Submission FY 1996/1997 Biennial Budget Estimate
B. Component/Business Area/Date DoN/R&D	C. Line No. & Item Description L151 BUILDING 489 FIRE PROTECTION
	D. Activity Identification NUWC DIVISION, KEYPORT

	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
Building 489 Fire Protection							1	290	290			

Narrative Justification:

Installs fire protection to the electronics and torpedo (MK 46) operating areas.

Fire regulations require that a fire protection system be installed.

000524

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY 1996/1997 Biennial Budget Estimate								
B. Component/Business Area/Date DoN/R&D				C. Line No. & Item Description L152 BUILDING 83 FIRE PROTECTION						D. Activity Identification NUWC DIVISION, KEYPORT		
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
Building 83 Fire Protection							1	275	275			

Narrative Justification:

Installs fire protection to the office areas in Bldg. 83U. finding by NAVFAC fire protection engineering survey. Construction places us in compliance with life safety codes.

22 000572

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY 1996/1997 Biennial Budget Estimate								
B. Component/Business Area/Date DoN/R&D				C. Line No. & Item Description L153 BUILDING 94 SUBSTATION AND SERVICE UPGRADES					D. Activity Identification NUWC DIVISION, KEYPORT			
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
Building 94 Substation And Service Upgrades							1	230	230			

Narrative Justification:

Upgrade power system to eliminate old, energy-inefficient units that are beyond economical life.

000573

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY 1996/1997 Biennial Budget Estimate								
B. Component/Business Area/Date DoN/R&D				C. Line No. & Item Description L154 BUILDING 234 ELECTRICAL MODIFICATIONS					D. Activity Identification NUWC DIVISION, KEYPORT			
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
Building 234 Electrical Modifications							1	240	240			

Narrative Justification:

Install an electrical system that meets National Electrical Code requirements. Install a motor control center for the boiler area.

This building provides High Pressure Air (HPA), steam, and emergency power for the Division. The existing system is beyond economical repair, is inefficient, and no longer has parts available. The new system is required to continue provided daily and emergency services to the Division.

255000

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY 1996/1997 Biennial Budget Estimate								
B. Component/Business Area/Date DoN/R&D				C. Line No. & Item Description L155 FACT OF LIFE DEMOLITION BUILDINGS					D. Activity Identification NUWC DIVISION, KEYPORT			
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
Fact of Life Demolition Buildings							Var		500	Var		500

Narrative Justification:

Demolish 35K square feet of facilities with excessive operations and maintenance costs. Savings are in excess of $800K/year.

000525

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY 1996/1997 Biennial Budget Estimate								
B. Component/Business Area/Date DoN/R&D				C. Line No. & Item Description L156 BUILDING 38 ELECTRICAL MODIFICATIONS					D. Activity Identification NUWC DIVISION, KEYPORT			
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
Building 38 Electrical Modifications							1	300	300			

Narrative Justification:

Install an electrical system that meets National Electrical Code requirements.

The electrical system has been updated and patched as new and more modern machine tools and welding operations have been installed. The system no longer can be added to and voltage fluctuations make operation of machine tools difficult.

005576

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY 1996/1997 Biennial Budget Estimate								
B. Component/Business Area/Date DoN/R&D				C. Line No. & Item Description L157 BUILDING 76 FIRE PROTECTION						D. Activity Identification NUWC DIVISION, KEYPORT		
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
Building 76 Fire Protection							1	300	300			

Narrative Justification:

Install a fire protection system and fire structural improvements to meet National Fire Code requirements.

Building 76 is the headquarters for NUWC Division Keyport fire protection (personnel and equipment) and police department (dispatch and personnel). The facility is required for continued operation of the Division.

Loss of Building 76 and its operations would be detrimental to the well-being of the division industrial operations and housing residents. Increased costs would result from constructing a new facility.

000577

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission: FY 1996/1997 Biennial Budget Estimate								
B. Component/Business Area/Date: DoN/R&D				C. Line No. & Item Description: L158 CORRECT FIRE DEPARTMENT DISCREPANCIES BUILDING 105N						D. Activity Identification: NUWC DIVISION, KEYPORT		
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
Correct Fire Department Discrepancies Building 105N										1	300	300

Narrative Justification:

Install a fire protection system and fire structural improvements to meet National Fire Code requirements.

Building 105N houses torpedo storage materials and is connected to an adjacent MK 48 facility.

000578

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY 1996/1997 Biennial Budget Estimate								
B. Component/Business Area/Date DoN/R&D				C. Line No. & Item Description L159 CONSTRUCT TORPEDO / CONTAINER LAYDOWN AREA						D. Activity Identification NUWC DIVISION, KEYPORT		
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
Construct Torpedo / Container LayDown Area										1	300	300

Narrative Justification:

Clear, level, and pave an area at the Undersea Warfare Annex for in-process storage of inert ordnance materials. The area will be lighted and fenced for security considerations.

The existing area is a temporary facility located in a remote location at the Undersea Warfare Annex. the area is located under an ESQD arc that restricts operation.

625000

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY 1996/1997 Biennial Budget Estimate								
B. Component/Business Area/Date DoN/R&D				C. Line No. & Item Description L160 CONSTRUCT NEW SCORPION GATE AT THE UNDERSEA WARFARE ANNEX					D. Activity Identification NUWC DIVISION, KEYPORT			
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
New Scorpion Gate At the Undersea Warfare Annex										1	300	300

Narrative Justification:

Corrects unsafe gate configuration that prevents use by explosives hauling trucks.

000580

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)	A. Budget Submission: FY 1996/1997 Biennial Budget Estimate
B. Component/Business Area/Date: DoN/R&D	C. Line No. & Item Description: L161 KB DOCK IMPROVEMENTS
D. Activity Identification: NUWC DIVISION, KEYPORT	

	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
KB Dock Improvements										1	300	300

Narrative Justification:

Add additional float and power capabilities to the K/B dock to enable improved capabilities.

Increased pressures on environmental, energy, and responsiveness to range requirements require upgrade of the float and power for range craft.

000581

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)				A. Budget Submission FY 1996/1997 Biennial Budget Estimate								
B. Component/Business Area/Date DoN/R&D				C. Line No. & Item Description L162 CONSTRUCT UPGRADE - BUILDING 25 HAWAII					D. Activity Identification NUWC DIVISION, KEYPORT			
	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
Construct Upgrade - Building 25 Hawaii										1	300	300

Narrative Justification:

Habitability and fire safety code corrections.

000582

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)	A. Budget Submission FY 1996/1997 Biennial Budget Estimate
B. Component/Business Area/Date DoN/R&D	C. Line No. & Item Description L178 MINOR CONSTRUCTION >50 <300K
D. Activity Identification NUWC DIVISION, NPT/KPT	

	FY 1994			FY 1995			FY 1996			FY 1997		
ELEMENTS OF COST	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
Minor Const >50 <300K									2720			2625

Narrative Justification:

For the period FY94 to FY97, NUWC will require miscellaneous minor construction projects to maintain and upgrade facilities at the Center.

285000

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION ($ in Thousands)	A. FY 1996/1997 Biennial Budget Estimate
B. Navy/Research & Development	C. L0002 Intrusion Detection System/Access Control System - New Mission
D. NCCOSC	

	FY94			FY95			FY96			FY97		
Element of Cost	QUANT	UNIT COST	TOTAL COST	QUANT	UNIT COST	TOTAL COST	QUANT	UNIT COST	TOTAL COST	QUANT	UNIT COST	TOTAL COST
Installation												
Testing												
Equipment										1	600.0	600.0
										-	-----	-----
TOTAL										1	600.0	600.0

Narrative Justification:

There is currently no integrated Electronic Security System (ESS) capability including sub-component Intrusion Detection System (IDS), Access Control System (ACS), and Emergency Control Center (ECC) at the NCCOSC In-Service Engineering West Coast Division (NISE West). The Navy standard system for ACS is the Navy Electronic Badging System swipe card badges. Also, there is no emergency control center/guard dispatch post displaying command, control and alarm information on the NISE West site, Air Force Plant 19 (AFP 19). The current configuration, established when AFP 19 became a contractor leased/operated facility, forwards alarm (fire and some intrusion) indications to a contractor ECC site, 10 miles from AFP 19. The contractor eliminated its ECC in October 1994. Without an IDS, ACS, and ECC, NISE West cannot adequately protect its government resources, nor can it respond properly to an emergency such as a fire. ACS readers are essential to: permit automated access to authorized personnel, provide an audit trail of spaces accessed, rapidly grant or deny permission to enter spaces, and maximize efficiency in permitting necessary access to personnel.

The proposed procurement will result in increased probability of detection and interception of forced entry into critical spaces at AFP 19, increased protection of government resources, and increased reaction to emergencies.

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION
($ in Thousands)

A. FY 1996/1997 Biennial Budget Estimate

B. Navy/Research & Development

C. L0003 Non-ADP Equipment (> $50,000, < $500,000)

D. NCCOSC

Element of Cost	FY94 QUANT	FY94 UNIT COST	FY94 TOTAL COST	FY95 QUANT	FY95 UNIT COST	FY95 TOTAL COST	FY96 QUANT	FY96 UNIT COST	FY96 TOTAL COST	FY97 QUANT	FY97 UNIT COST	FY97 TOTAL COST
Installation												
Testing												
Equipment							VAR		2,704.0	VAR		1,614.0
TOTAL									2,704.0			1,614.0

DESCRIPTION

NCCOSC's Non-ADP requirements can be broken down as follows:

	FY96	FY97
Access Control System/Closed Circuit Television	520	0

The Closed Circuit Television System (CCTV) will be installed in Warminster, PA to provide remote monitoring of sensitive spaces, building entrances and fencing entry points for detection of attempted illegal entry. Funding will also be used to extend the San Diego CCTV upgrade commenced in FY94.

Microelectronic Clean Room Upgrade	270	0

Future designs continue to require fabrication of microelectronic circuits in clean room conditions. The current Microelectronic Lab clean room in San Diego is over 20 years old and is deteriorating. It needs to be replaced to maintain clean room conditions.

Wideband High Frequency Channel Simulators	0	250

This equipment is necessary to keep the signal and jammer as independent paths, and will enhance ongoing research in Electronic Countermeasures programs.

Mail Mobile	50	0

This item will deliver mail over a pre-determined route, eliminating the need for messengers.

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION
($ in Thousands)

A. FY 1996/1997 Biennial Budget Estimate

B. Navy/Research & Development

C. L0003 Non-ADP Equipment (Continued)

D. NCCOSC

Element of Cost	FY94 QUANT	FY94 UNIT COST	FY94 TOTAL COST	FY95 QUANT	FY95 UNIT COST	FY95 TOTAL COST	FY96 QUANT	FY96 UNIT COST	FY96 TOTAL COST	FY97 QUANT	FY97 UNIT COST	FY97 TOTAL COST
Installation												
Testing												
Equipment												
TOTAL												

DESCRIPTION

	FY96	FY97
Compact Antenna Range Reflector Plate and Pedestal	265	0
This equipment will allow the anechoic chamber located at the NCCOSC RDT&E Division to be used as a compact range which will improve dynamic range and quieting. Every year the electromagnetic noise level increases, thereby reducing the ability to measure sidelobe performance.		
Intrusion Detection System equipment	200	0
Electronic Assessment System equipment	250	0
Other Administrative/Operational Equipment	557	579
Procurements in this category include lathes, other equipment for making tools, machine shop equipment, testing equipment, oscilloscopes, and photocopy machines.		
Other Scientific/Technical Equipment	592	785
These requirements vary widely by function and department. Examples include a lightwave signal analyzer, data monitoring and recording systems, spectrum analyzers, calibration equipment, radar components, and a radar receiver.		

000586

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION ($ in Thousands)	A. FY 1996/1997 Biennial Budget Estimate
B. Navy/Research & Development	C. L0005 - Computer Systems Upgrade New Mission
	D. NCCOSC

	FY94			FY95			FY96			FY97		
Element of Cost	QUANT	UNIT COST	TOTAL COST	QUANT	UNIT COST	TOTAL COST	QUANT	UNIT COST	TOTAL COST	QUANT	UNIT COST	TOTAL COST
Installation												
Testing												
Equipment							1		352.0	1		150.0
TOTAL									352.0			150.0

DESCRIPTION/JUSTIFICATION

NCCOSC RDT&E Division business system "legacy" applications reside on VMS computers. Older, more costly VAX/VMS Production computers have been replaced with newer, more cost effective ALPHA/VMS computers. This upgrade is required to support the maintenance and reengineering environment for Business Systems Production applications on Alpha class computers, necessitated by mandated and required software changes to existing application systems. This support environment must also be compatible with existing VAX/VMS production and maintenance support computers.

The current business systems consist of multiple computers running in a clustered environment. The proposed buy is a system building block upgrade to current computer systems including mass storage. This system would replace existing processors, mass storage, and magnetic tape backup systems. Business Service providers in the areas of Personnel, Acquisition, Security, and Tasking and Planning require this computer as a "production backup" resource.

Benefits include increased processing capability due to increased speeds available with the newer technology, higher capacity and faster access to mass storage for usage that consistently shows I/O processing bottlenecks, and current technology backup systems, either DAT or 8MM, on a faster I/O bus.

This procurement will result in reduced costs for power consumption, air conditioning, and hardware maintenance. Due to considerable costs associated with software conversion, no other platforms were considered.

000587

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION
($ in Thousands)

A. FY 1996/1997 Biennial Budget Estimate

B. Navy/Research & Development

C. L0006 - File and Archive Server
New Mission

D. NCCOSC

Element of Cost	FY94 QUANT	FY94 UNIT COST	FY94 TOTAL COST	FY95 QUANT	FY95 UNIT COST	FY95 TOTAL COST	FY96 QUANT	FY96 UNIT COST	FY96 TOTAL COST	FY97 QUANT	FY97 UNIT COST	FY97 TOTAL COST
Installation												
Testing												
Equipment							1		51.0	1		200.0
TOTAL									51.0			200.0

DESCRIPTION/JUSTIFICATION

A file and archive server will be used to support consolidation of data storage and archive capabilities of the Naval Command Control and Ocean Surveillance Center, RDT&E Division (NRaD).

The NRaD computer center provides file storage and archival service to scientists, engineers, researchers, and administrative personnel at the Center. The existing file and archival system cannot adequately support the increasing demands of the user community. The proposed file storage and archival service hardware will provide the means necessary to meet these requirements. These procurements for FYs 1996/1997 will augment existing capabilities and are planned to take advantage of what technology is available at that time. Planned procurements include hardware to support "on-going" loading of files from secondary load devices and additional disk storage.

The impact of not augmenting the existing capabilities will be reduced processing capability and additional manhours of labor to upload and load existing data so that additional processing can be accomplished. With projected reduced labor hours, the system is intended to operate without operator intervention.

000588

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION
($ in Thousands)

A. FY 1996/1997 Biennial Budget Estimate

B. Navy/Research & Development

C. L0007 - Database Engine Upgrade
New Mission

D. NCCOSC

Element of Cost	FY94 QUANT	FY94 UNIT COST	FY94 TOTAL COST	FY95 QUANT	FY95 UNIT COST	FY95 TOTAL COST	FY96 QUANT	FY96 UNIT COST	FY96 TOTAL COST	FY97 QUANT	FY97 UNIT COST	FY97 TOTAL COST
Installation												
Testing												
Equipment							VAR		260.0	VAR		380.0
TOTAL									260.0			380.0

DESCRIPTION/JUSTIFICATION

The database engine upgrade provides upgrades to existing computers used to host a centralized corporate database at the NCCOSC RDT&E Division (NRaD).

NRaD uses an existing computer to host a logically centralized corporate database. This database stores data used by the business information systems. This database is being incrementally populated. Legacy information systems that had previously independently stored data are being retargeted to use the centralized corporate database. As data is migrated to the centralized database, the host computer will need increased computing performance and data storage capability.

FY96 purchases will include additional disk drives to store data and additional processors and memory to support information systems that will then talk to the corporate database. The FY97 purchase is for an additional computer.

000589

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION ($ in Thousands)	A. FY 1996/1997 Biennial Budget Estimate
B. Navy/Research & Development	C. L0008 Supercomputer System - New Mission / D. NCCOSC

	FY94			FY95			FY96			FY97		
Element of Cost	QUANT	UNIT COST	TOTAL COST	QUANT	UNIT COST	TOTAL COST	QUANT	UNIT COST	TOTAL COST	QUANT	UNIT COST	TOTAL COST
Installation												
Testing												
Equipment							Var		1,000.0	Var		1,550.0
TOTAL									1,000.0			1,550.0

DESCRIPTION/JUSTIFICATION

The NCCOSC RDT&E Division (NRaD) Supercomputer System is an integral part of a secure signal processing facility. NRaD received $1.4 million in FY 1993 and $1.0 million in FY 1994 to purchase an Intel PARAGON XP/S and Convex SPP-1 parallel supercomputer systems, Silicon Graphics scientific visualization systems and ATM/SONET high speed networking systems and peripherals. The PARAGON has 25 Gigaflops (billion floating point operations per second) minimum peak performance; the SPP-1 has 1.6 gigaflops. The systems are used primarily for solving classified scientific problems, investigations and experimental development of embedded system applications (real time, data bases, simulations, signal and image processing and Communications, Command and Control functions). Scientists and engineers at over 40 different RDT&E activities of all branches of DOD have access to the PARAGON via the Defense Research & Engineering Network. High Performance Computing (HPC) & communications are vital, essential base technologies that will drive or limit the conduct of virtually all science and engineering for the foreseeable future. Increased HPC capability in DOD is needed to raise performance levels in advanced, embedded military computing systems, to pioneer cost reductions in these systems, and to enhance the opportunity for commercialization of computational products by other sectors. This is an initiative by the Office of the Director of Defense Research and Engineering summarized by the "Invitation for Proposals, DOD High Performance Computing Mod Plan (HPC-MP)" of 11 September 1992. In it, specific functions and applications fundamental to progress in scientific and technologic areas of interest to the DOD were assessed. The requirements were found to far exceed current DOD capabilities. The initial NRaD response to this initiative was the PARAGON system, which was selected based on the following criteria: contribution to DOD mission, synergism with science and technology R&D, technical merit, organizational commitment to HPC, cost efficiency, complement of DOD long-range goals, readiness, and track record. The subsequent response of NRaD to these requirements was the Convex SPP-1 system, which is a parallel supercomputing extension to the Tactical Advanced Computer (TAC-3). It supports development of parallel tactical

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION ($ in Thousands)	A. FY 1996/1997 Biennial Budget Estimate
B. Navy/Research & Development	C. L0008 Supercomputer System (Continued)
D. NCCOSC	

	FY94			FY95			FY96			FY97		
Element of Cost	QUANT	UNIT COST	TOTAL COST	QUANT	UNIT COST	TOTAL COST	QUANT	UNIT COST	TOTAL COST	QUANT	UNIT COST	TOTAL COST
Installation												
Testing												
Equipment												
TOTAL												

information integration and display technology software using the TAC-3 processors. Other commercial parallel and sequential computers were also considered. However, the SPP-1 meets the current and projected requirements, its computing power cannot be obtained elsewhere for the comparable price, and existing and planned TAC-3 installations in the Fleet are candidates for upgrades to such parallel processing capability.

In FY96 and FY97, funds will be used to increase the current capability of the DoD Paragon System placed at NRaD in FY93, the FY94 acquisitions of the NRaD SPP-1 system, visualization systems and ATM networking, and the FY95 purchase of additional disks, memory and processing nodes for the Paragon and the SPP-1, visualization workstation upgrades, and an archival storage system. In addition, network access to that system and other DoD systems nationwide will be facilitated for NRaD scientists and engineers. In FY96 and FY97 parallel processor upgrades, visualization peripherals, high speed networks, and other system enhancements will be acquired.

The alternative to increasing the capability of the DoD Paragon, the Convex SPP-1, scientific visualization systems and ATM networks at NRaD is to purchase new computer systems, visualization systems and networks to support NRaD projects. This solution would be far more expensive than leveraging the substantial FY93-FY95 NRaD and DoD investments by making additions to the capability of the existing systems.

000591

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION
($ in Thousands)

A. FY 1996/1997 Biennial Budget Estimate

B. Navy/Research & Development

C. L0009 - Personal Computer Client Server
New Mission

D. NCCOSC

Element of Cost	FY94 QUANT	FY94 UNIT COST	FY94 TOTAL COST	FY95 QUANT	FY95 UNIT COST	FY95 TOTAL COST	FY96 QUANT	FY96 UNIT COST	FY96 TOTAL COST	FY97 QUANT	FY97 UNIT COST	FY97 TOTAL COST
Installation												
Testing												
Equipment								1	180.0			
TOTAL									180.0			

DESCRIPTION/JUSTIFICATION

The NCCOSC RDT&E Division (NRaD) is building a corporate information system. The current system is many years old. It is of outdated design based on mainframe computers. The information provided is not timely enough to meet today's requirements and is not provided in a form suitable for the use with the high quality inexpensive computer tools that the Personal Computer (PC) revolution has provided.

The new corporate information system is based on a layered model progressing from the indivdual to the entire enterprise, where each layer has a distinct separation of responsibilities and powers. This approach provide the maximum local initiative and control while at the same time has an enterprise wide, even worldwide, capability to communicate, collaborate, and manipulate information. This layered model parallels the physical architecture of the Local Area Networks (LANs), Wide Area Networks (WANs), and client/server environments.

The new corporate information system is almost complete, based on FY 94-95 procurements. The first user applications are now online but many of the beneficiaries of this new technology, while in possession of desktop computer systems, are not networked in accordance to NRaD's layered-network model. To be purchased in FY96 are workgroups servers to support NRaD corporate management data models and applications, according to NRaD goverance. Other FY96 purchases will include network operating server licenses, data storage, tape backup, and user application licenses.

000592

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION
($ in Thousands)

A. FY 1996/1997 Biennial Budget Estimate

B. Navy/Research & Development

C. L0010 - Microfiche System Replacement

D. NCCOSC

Element of Cost	FY94 QUANT	FY94 UNIT COST	FY94 TOTAL COST	FY95 QUANT	FY95 UNIT COST	FY95 TOTAL COST	FY96 QUANT	FY96 UNIT COST	FY96 TOTAL COST	FY97 QUANT	FY97 UNIT COST	FY97 TOTAL COST
Installation												
Testing												
Equipment										1		150.0
TOTAL												150.0

DESCRIPTION/JUSTIFICATION

The DATAGRAPHICS XL500 microfiche output system provides a fully automated, high quality microfiche master and duplicates, wet or dry developed, and on-line processing. By FY97, the present system will be worn due to heavy production demands and age. Maintenance will be at least two (2) times more per week than for the proposed system. The on-line system is controlled by a PC with increased software enhancements. The proposed system will easily be able to handle increased production requirements due to increased workload (mega-center/consolidation). The proposed PC driven system, with software enhancements that an operator can design and control, will not require a manager to operate the system.

000593

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION
($ in Thousands)

A. FY 1996/1997 Biennial Budget Estimate

B. Navy/Research & Development

C. L0011 - Computer Upgrade for NFAS New Mission

D. NCCOSC

Element of Cost	FY94 QUANT	FY94 UNIT COST	FY94 TOTAL COST	FY95 QUANT	FY95 UNIT COST	FY95 TOTAL COST	FY96 QUANT	FY96 UNIT COST	FY96 TOTAL COST	FY97 QUANT	FY97 UNIT COST	FY97 TOTAL COST
Installation												
Testing												
Equipment							1		352.0			
TOTAL									352.0			

DESCRIPTION/JUSTIFICATION

This computer upgrade provides improved computing capability for the NCCOSC Finance and Accounting System (NFAS), which supports the entire NCCOSC activity, with its annual budget of greater than $1.5B. This computer upgrade will increase computing and data access/storage capacity to allow continued processing by NFAS.

NFAS has a set weekly and monthly operations schedule. During periods of peak activity, the existing computer supporting the system becomes overloaded. Some jobs run in excess of eighteen (18) hours. The NFAS system is in its second year of operation. Over time, the NFAS data volume will continue to grow as more and more corporate financial transactions and historical data are required. This increased volume will further degrade performance. The existing computer supporting NFAS is an older machine that does not utilize the latest technology. Without this upgrade, it is expected that NCCOSC will not be able to conclude daily transaction processing within a 24 hour period, and will suffer further degradation in the timeliness and accuracy of its critical offical corporate financial information. This procurement would replace the existing machine in FY 1996 with a new machine that will have improved computing performance and lower maintenance costs.

NCCOSC has entered into a partnership with the Defense Finance and Accounting Service to continue the operation and maintenance of NFAS until an interim/migratory financial system is selected, at which time NCCOSC will use this standard system. When NFAS was implemented in October 1993, it was expected that it would be replaced within three years by a standard DoD accounting system. Current indications are that the time frame for a standard system is extending, and that there is no estimated implementation date for such a system.

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION ($ in Thousands)	A. FY 1996/1997 Biennial Budget Estimate
B. Navy/Research & Development	C. L0015 - Fiber Optics Local Area Network New Mission
	D. NCCOSC

	FY94			FY95			FY96			FY97		
Element of Cost	QUANT	UNIT COST	TOTAL COST	QUANT	UNIT COST	TOTAL COST	QUANT	UNIT COST	TOTAL COST	QUANT	UNIT COST	TOTAL COST
Installation												
Testing												
Equipment							VAR		430.0	VAR		435.0
TOTAL									430.0			435.0

The "Command and Control Advanced Research Network" (CCARnet) will be a backbone network service for classified (up to SECRET) and unclassified high bandwidth, high speed, multi-media (digital, voice, video) internetworking among NCCOSC RDT&E Division (NRaD) Command and Control Department lab spaces located throughout Point Loma and also at offsite facilities. This is a continuation of an FY 94/95 effort.

This facility will consist of a fiber optic cable plant (multiple strands for singlemode and multimode fibers), fiber optic patch panels, LAN bridges/routers, ATM switches, net management stations, INFOSEC encryption devices, LAN interfaces and other LAN hardware and software. The fiber plant provides the capability to run point-to-point connectivity, FDDI, Ethernet, and ATM, and will accommodate various network protocols such as TCP/IP, DECnet, XTP/SAFENET and Novell IPX/SPX. The Seaside Internet, a Command and Control Complex fiber network, will be integrated into this network.

a) In-house labor for network design, procurement and integration of devices
b) Network interfaces will be used to connect workstations, computers, ethernet networks, FDDI networks and ATM devices to this network.
c) Fiber Optic Plant will provide fiber connectivity (fiber cable, patch panels, etc.) between laboratories.
d) Protocol testers will support high speed network technology and protocol research on ATM and FDDI networks.
e) Network management encompasses the hardware and software to create a consolidated Classified/Unclassified network management capability for LANs and WANs. This will be important for joint demonstrations.
f) INFOSEC Equipment will be anticipated NSA-approved devices that will protect high speed FDDI and ATM networks.
g) Multimedia/Teleconferencing equipment will support technology research in putting multimedia and videoteleconferencing capabilities over C2 networks and systems.

000595

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION
($ in Thousands)

A. FY 1996/1997 Biennial Budget Estimate

B. Navy/Research & Development

C. L0015 - Fiber Optics Local Area Network (Continued)

D. NCCOSC

Element of Cost	FY94 QUANT	FY94 UNIT COST	FY94 TOTAL COST	FY95 QUANT	FY95 UNIT COST	FY95 TOTAL COST	FY96 QUANT	FY96 UNIT COST	FY96 TOTAL COST	FY97 QUANT	FY97 UNIT COST	FY97 TOTAL COST
Installation												
Testing												
Equipment												
TOTAL												

h) High Performance Workstations will be new technology workstations such as TAC-4 or high performance computers. They will be used to evaluate network and communications performance using C2 applications and technology.

The alternative to this network is to continue using current communications which rely on point-to-point wiring. Point-to-point wiring provides limited communication capability because a computer can only talk to the one central computer to which it is hard-wired. The current system requires constant rewiring and reconfiguration in order to link computers. Where the system cannot be reconfigured, information must be transferred manually or in some cases, is not transferred at all. This process wastes time and money. The continued operation of the current system is also expensive both in terms of equipment required (hardware interfaces for each interconnecting system) and labor to interconnect a constantly changing system configuration.

A LAN will enable efficient communication among all computers on a network thus allowing better communication, higher efficiency, and monetary savings.

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION ($ in Thousands)	A. FY 1996/1997 Biennial Budget Estimate
B. Navy/Research & Development	C. L0016 - Virtual Reality System New Mission
	D. NCCOSC

	FY94			FY95			FY96			FY97		
Element of Cost	QUANT	UNIT COST	TOTAL COST	QUANT	UNIT COST	TOTAL COST	QUANT	UNIT COST	TOTAL COST	QUANT	UNIT COST	TOTAL COST
Installation												
Testing												
Equipment							VAR		127.0	VAR		100.0
TOTAL									127.0			100.0

DESCRIPTION/JUSTIFICATION

Current functional shortfall: The NCCOSC RDT&E Division presently has no capacity to conduct research in the application of Virtual Reality technology to Naval Command and Control because of a lack of computer and Head Mounted Display (HMD) equipment capable of generating and displaying complex virtual tactical environments in real time and at resolutions sufficient to support tactical C2 data symbology. Items to be bought include:

- Reality Engine computer - needed to provide maximum computer throughput speed, and texture handling capability;
- SimEye color HMD - a high resolution, color HMD with see-through optics capability is essential to display sufficient C2 data details;
- Software - needed to model every object that will be displayed in the interactive 3-D graphical virtual tactical environment;
- Voice Recognition System - essential as a primary computer interface since the user may not be able to see objects in the real environment (like keyboards);
- Tracking and Pointing System - essential for computer tracking of the user's head so that the graphic computer can present the HMD with the proper imagery;
- Multi-channel 3-D Audio Display - essential for presenting 3-D spatialized sounds corresponding to tactical information sources in the virtual environment.

All of these components are essential to the creation of a system that is capable of generating and presenting an integrated high resolution, responsive tactical 3-D C2 Virtual Environment. Systems that present such complex environments at lower resolution and slower response times are known to adversely impact the validity of the performance data acquired, and have even been shown to induce operator malaise similar to simulator sickness. No other suite of hardware and software is capable of this high performance at a lower cost.

This facility will support multiple projects to provide advanced interface for C2 simulations and models, thereby saving on duplication of hardware and decreasing virtual environment development time and costs.

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION
($ in Thousands)

A. FY 1996/1997 Biennial Budget Estimate

B. Navy/Research & Development

C. L0017 - Document Imaging System
New Mission

D. NCCOSC

Element of Cost	FY94 QUANT	FY94 UNIT COST	FY94 TOTAL COST	FY95 QUANT	FY95 UNIT COST	FY95 TOTAL COST	FY96 QUANT	FY96 UNIT COST	FY96 TOTAL COST	FY97 QUANT	FY97 UNIT COST	FY97 TOTAL COST
Installation									7.0			
Testing												
Equipment									107.0			
TOTAL									114.0			

DESCRIPTION/JUSTIFICATION

The system will provide a document/image management capability that will include scan, Optical Character Recognition (OCR), index, store, retrieve, and print functions. The system will be capable of evolving or being integrated into a fully collaborative network system in subsequent increments with video teleconferencing, workflow management, group authoring and decision support capabilities.

Currently, documents needed for work, such as program management and systems development and maintenance, take a long time to route and retrieve, diverting employees away from productive work. Documents occasionally get lost or physically damaged. Also, they require a large amount of valuable secure space for storage, resulting in cramped working conditions. This new system will provide better document access, improved document integrity, and reduced storage space. Subsequent increments to the system will reduce travel hours and costs, and improve engineering support.

There are no comparable alternatives to purchasing the document imaging system. Microfiche, the most obvious alternative, would only slightly lessen many of the problems that currently exist.

It is important to note that document retrieval is often performed by direct labor workers such as engineers so this shortfall has a significant impact on productivity. Switching to a document imaging system would, therefore, save time and money and increase productivity.

000598

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION
($ in Thousands)

A. FY 1996/1997 Biennial Budget Estimate

B. Navy/Research & Development

C. L0018 - Upgrade to Time Domain Measurement Range - Replacement

D. NCCOSC

Element of Cost	FY94 QUANT	FY94 UNIT COST	FY94 TOTAL COST	FY95 QUANT	FY95 UNIT COST	FY95 TOTAL COST	FY96 QUANT	FY96 UNIT COST	FY96 TOTAL COST	FY97 QUANT	FY97 UNIT COST	FY97 TOTAL COST
Installation												
Testing												
Equipment									100.0			
TOTAL									100.0			

DESCRIPTION/JUSTIFICATION

The current condition of the NCCOSC RDT&E Division (NRaD) Bounded Wave Simulator (BWS) of the Time Domain Measurement Range (TDMR) is not optimal for performing measurements. Metallic components on the topside of the BWS cause high clutter to target ratios and interactions which make range calibration and measurements more difficult and time consuming. Moreover, the present feedpoint on the BWS has deteriorated with time, and needs to be replaced with a newer design which would provide a better impedance match to the rest of the BWS. These changes would provide a better measurement capability for EMP/EMC evaluations on ship models and resonant radar cross section measurements being used in impulse radar technology.

The upgrade will include: (1) the replacement of various parts of the BWS in order to increase the range's capability to make electromagnetic pulse/electromagnetic compatibility (EMP/EMC) and reasonant radar cross section measurements, (2) the transfer of software used to make the above measurements from an outdated LSI 11/23 to a personal computer.

Purchase plans for FY96 are as follows:

A) replace wires and turnbuckles on top of BWS with non-conductive materials.
B) replace feedpoint on the BWS
C) new software to transfer ENP/EMC programs from LSI 11/23 to PC.

000599

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION
($ in Thousands)

A. FY 1996/1997 Biennial Budget Estimate

B. Navy/Research & Development

C. L0019 - Access Control System (Warminster)
New Mission

D. NCCOSC

Element of Cost	FY94 QUANT	FY94 UNIT COST	FY94 TOTAL COST	FY95 QUANT	FY95 UNIT COST	FY95 TOTAL COST	FY96 QUANT	FY96 UNIT COST	FY96 TOTAL COST	FY97 QUANT	FY97 UNIT COST	FY97 TOTAL COST
Installation												
Testing												
Equipment							Var		200.0			
TOTAL									200.0			

DESCRIPTION/JUSTIFICATION

The Access Control System (ACS) procurement is a series of badge or card readers and keypads connected to a computer and/or micro-processors that allow a person processing a valid badge to access a space, building, or gate without other human involvement. When the ACS reads a valid badge it releases the electronic door strike allowing that person to open the door or gate. This type of access control eliminates the need for an individual to visually control access to the area in question, yet it provides a central record of activity that can be audited.

The Warminster site to be assumed by the NCCOSC RDT&E Division (NRaD) currently has no ACS to control access to the facility, buildings, or spaces without using guards. Currently guard service is provided by the Naval Air Warfare Center Aircraft Division, which is scheduled to relocate to Patuxent River starting in FY 1995. In FY 1995 NRaD will assume the guard service responsibility.

Extension of the capability installed at NRaD San Diego to the Warminster site will ensure that a single badge may be used for access throughout NRaD, eliminating duplicative badging while saving approximately 1.5 guard workyears (or approximately $200K) which would otherwise be required to control access.

Alternatives considered included using stationary guards or receptionists to control access and using an alternate ACS not compatible with the ACS installed in San Diego. The former method would either place too great a burden on existing government manpower or cost too much in contractor support. The latter technique adds administrative duties to the existing badging process and results in multiple badges being held by employees.

009000

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION ($ in Thousands)	A. FY 1996/1997 Biennial Budget Estimate
B. Navy/Research and Development	C. L0022 Data Base machine - New Mission
D. NCCOSC	

	FY94			FY95			FY96			FY97		
Element of Cost	QUANT	UNIT COST	TOTAL COST	QUANT	UNIT COST	TOTAL COST	QUANT	UNIT COST	TOTAL COST	QUANT	UNIT COST	TOTAL COST
Installation										1	10.0	10.0
Testing										1	10.0	10.0
Equipment										1	80.0	80.0
TOTAL												100.0

EXPLANATION/JUSTIFICATION

Currently, the NCCOSC In-Service Engineering West Coast Division (NISE West) corporate data base is spread across three systems (one using Oracle, one using IBM VSAM, and one using a Wang data base). In order to maintain the financial, equipment, and personnel records associated with NISE West's mission critical projects, and to provide the access necessary for the management of these programs, a single data base machine is required. Requirements for this machine include the use of the new open system architecture environment, which allows for the right-sizing of projects and equipment support costs. Additional accesses are required so that the rapid identification and movement of mission critical resources can be accomplished.

As the move to rapid response on projects and the need to access data from anywhere in the country continues, the requirement for access to data will continue to grow. Fleet needs will require 24 hour a day access to project data. Existing NISE West systems do not currently provide this level of access. The proposed procurement of the data base machine will meet this requirement, while also reducing contractor support by approximately two workyears ($80K).

The only alternative to the proposed procurement is to remain with the existing hardware/software database suites and procure new hardware to upgrade each of the systems to provide the access required. This is more costly, and more importantly would not result in a common NISE West data base system. The proposed procurement meets the functional requirement, is less costly, and will also result in the elimination of mid-size obsolete computers.

000601

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION
($ in Thousands)

A. FY 1996/1997 Biennial Budget Estimate

B. Navy/Research & Development

C. L0023 - Document Management System - New Mission

D. NCCOSC

Element of Cost	FY94 QUANT	FY94 UNIT COST	FY94 TOTAL COST	FY95 QUANT	FY95 UNIT COST	FY95 TOTAL COST	FY96 QUANT	FY96 UNIT COST	FY96 TOTAL COST	FY97 QUANT	FY97 UNIT COST	FY97 TOTAL COST
Installation												
Testing												
Equipment							1	135.0	135.0	1	135.0	135.0
TOTAL									135.0			135.0

DESCRIPTION/JUSTIFICATION

The NCCOSC In-Service Engineering West Coast Division (NISE West) needs to provide real time information on mission projects in order to respond to customer requirements. Currently, NISE West cannot meet this requirement. The proposed document management system will provide this capability while also reducing manpower requirements.

Incoming documentation is presently being tracked through manual means, as the continued drawdown of personnel results in fewer and fewer people available to do the same amount of work. It will become essential that project related documentation be stored in a manner that will support reviews of tasking vs. outgoing responses vs, support documents relative to tasks and sub-tasks. The proposed systems will allow such storage and retrieval throughout NISE West and NCCOSC.

Project documents which require real time access include tasking, status, review, analysis and study documents, technical manuals and other technical reports. Currently, the technical manuals and other technical reports are maintained in a document storage facility, while all other documents are maintained in the project offices. The automation of the document storage function will result in quicker and easier retrieval, less costly storage, and reduced manpower requirements.

The proposed procurements will result in the reduction of two manyears of effort currently required.

000062

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION ($ in Thousands)	A. FY 1996/1997 Biennial Budget Estimate
B. Navy/Research & Development	C. L0004 - ADP Equipment (> $50,000, < $100,000)
	D. NCCOSC

	FY94			FY95			FY96			FY97		
Element of Cost	QUANT	UNIT COST	TOTAL COST	QUANT	UNIT COST	TOTAL COST	QUANT	UNIT COST	TOTAL COST	QUANT	UNIT COST	TOTAL COST
Installation												
Testing												
Equipment							VAR		1,743.0	VAR		1,640.0
TOTAL									1,743.0			1,640.0

DESCRIPTION

	FY96	FY97
A) Computer Aided Design/Computer Aided Manufacturing (CAD/CAM)	126	0

This includes an electrostatic laser plotter that is required as part of an overall 5-year plan to upgrade to Navy CAD II contract systems from the CAD I system procured in 1982. This also will be able to share multiple systems; eliminating the need for separate plotters. New workstations with increased capabilities are also required to accomplish this upgrade. Optical disk storage systems for completed engineering design drawings will offer increased performance with less facility space taken up.

B) Computer Network Equipment	750	822

NCCOSC's computer network management concept is to monitor and correct network errors, thereby limiting downtime in its extensive environment covering several thousand areas of operations. These include corporate computer centers, scientific and engineering computers, and staff centers. Various controllers, fiber optics materials, and upgrades to connect PCs to the main network in order to share data, printers, and storage devices will be purchased.

C) Workstations and Personal Computers	867	818

High resolution color graphics workstations are included here. They will be used for model and algorithm development, data analysis, and software engineering tasks, and mechanical engineering design efforts. Tactical Advanced Computer-3 workstations are required to run/access Anti-Submarine Warfare Tactical Decision Aid, Submarine Fleet Mission Program Library, Surface Ship Advanced Development Module, and Integrated Carrier Anti-Submarine Prediction System applications.

000603

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION
($ in Thousands)

A. FY 1996/1997 Biennial Budget Estimate

B. Navy/Research & Development

C. L0025 Database License for CLUSTER - New Mission

D. NCCOSC

Element of Cost	FY94 QUANT	FY94 UNIT COST	FY94 TOTAL COST	FY95 QUANT	FY95 UNIT COST	FY95 TOTAL COST	FY96 QUANT	FY96 UNIT COST	FY96 TOTAL COST	FY97 QUANT	FY97 UNIT COST	FY97 TOTAL COST
Installation												
Testing												
Equipment							1		100.0	1		220.0
TOTAL									100.0			220.0

DESCRIPTION/JUSTIFICATION

These procurements are for software licenses required in the re-engineering of business systems. Additionally, user licenses are required for the implementation of the re-engineered business applications which will be capable of running in an Oracle Relational DataBase Management System (RDBMS) environment.

The NCCOSC RDT&E Division (NRaD) is re-targeting information systems to a centralized corporate database. Systems are being re-engineered to interface with a corporate database running on commercial RDBMS software (Oracle).

As the computing environment for production re-engineered systems evolves, new software licenses are required to take advantage of technological improvements and products required to host the re-engineered applications in a new computing environment. Additionally, as legacy information systems are re-engineered to access the NCCOSC corporate database, the number of user licenses will need to be upgraded for access to corporate data.

Acquired software licenses will primarily support a Data Bridge Application that provides an interface between legacy information systems and the NCCOSC corporate database.

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION ($ in Thousands)	A. FY 1996/1997 Biennial Budget Estimate
B. Navy/Research & Development	C. L0028 - Data Warehouse - New Mission
D. NCCOSC	

	FY94			FY95			FY96			FY97		
Element of Cost	QUANT	UNIT COST	TOTAL COST	QUANT	UNIT COST	TOTAL COST	QUANT	UNIT COST	TOTAL COST	QUANT	UNIT COST	TOTAL COST
Installation												
Testing												
Equipment							1		100.0			
TOTAL									100.0			

DESCRIPTION/JUSTIFICATION

The FY 96 procurement is for a Data Warehouse System and related software, which was started as a FY95 project.

A data warehouse is required to store and manage summarized corporate NCCOSC data for use by Executive Information Systems (which facilitate access to the data warehouse, the repository for extensive financial and strategic planning data for past, current, and future years). Additional software will be required to structure data for storage in the data warehouse. Required software for data warehousing includes a Warehouse Manager, MetSource Manager, and Relational Database Management System. The types of data required to support decision making include not only operational data, but also historical, summarized, and derived data, permitting trend analysis and forecasting. The latter types of data require a different type of storage mechanism, called data warehousing. A data warehouse provides the foundation for Executive Information Systems (EIS) and Decision Support Systems (DSS).

Executive Information Systems are used by upper management to predict and analyze, in an ad-hoc manner, past corporate trends and to help plan for the future. Decision Support Systems are used by middle and upper management as well as management analysts to review past trends and to predict the future. This new capability of data warehousing will allow NCCOSC corporate management to store the summarized yearly data into the warehouse so that it is available for ad-hoc EIS and DSS queries. These queries will provide NCCOSC management will additional tools to manage the geographically dispersed 5,000+ employee NCCOSC organization in a more efficient manner.

000605

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION
($ in Thousands)

A. FY 1996/1997 Biennial Budget Estimate

B. Navy/Research & Development

C. L0024 Off The Shelf Software - (> $50,000, < $100,000)

D. NCCOSC

Element of Cost	FY94 QUANT	FY94 UNIT COST	FY94 TOTAL COST	FY95 QUANT	FY95 UNIT COST	FY95 TOTAL COST	FY96 QUANT	FY96 UNIT COST	FY96 TOTAL COST	FY97 QUANT	FY97 UNIT COST	FY97 TOTAL COST
Installation												
Testing												
Equipment							VAR		829.0	VAR		347.0
TOTAL									829.0			347.0

DESCRIPTION

NCCOSC's Off The Shelf Software requirements are as follows:

	FY96	FY97
A) Software Case Tools	40	40

The NCCOSC RDT&E Division (NRaD) is retargeting information systems to use a centralized corporate database. Software tools are required to support information systems maintenance.

B) Standard Corporate Software	195	195

The corporate support structure provides the capability to "serve" software applications across the corporation. Software licenses from the commercial sector allow software applications to reside on a server. This software provides the capability to support more users with only a few software packages.

C) Other Administrative/Operational Software	594	112

Natural Language software to be installed on SUN/4 and VAX machines will provide an English language interface to the corporate database. This will allow administrative assistants to query the database and produce reports without programmers.

Upgrade of Composition and Graphics System Software for Electonic Documentation System will maintain compatibility with software in use at NRaD and other DoD and Navy facilities required to provide digital copy.

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION
($ in Thousands)

A. FY 1996/1997 Biennial Budget Estimate

B. Navy/Research & Development

C. L0024 Off The Shelf Software - (> $50,000, < $100,000) (Continued)

D. NCCOSC

Element of Cost	FY94 QUANT	FY94 UNIT COST	FY94 TOTAL COST	FY95 QUANT	FY95 UNIT COST	FY95 TOTAL COST	FY96 QUANT	FY96 UNIT COST	FY96 TOTAL COST	FY97 QUANT	FY97 UNIT COST	FY97 TOTAL COST
Installation												
Testing												
Equipment												
TOTAL												

DESCRIPTION

C) Other Administrative/Operational Software (Cont.)

Executive Information System Software is required to support summarized, historical, and detailed information needs of Center management. Commercial software will be purchased to support this requirement.

Site licenses for improvements to the NCCOSC Communication Internet software will be purchased in FY 1995.

Document routing/retrieval software will be purchased in FY 1996.

000607

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION ($ in Thousands)	A. FY 1996/1997 Biennial Budget Estimate
B. Navy/Research & Development	C. L0030 Videoteleconferencing System - New Mission
	D. NCCOSC

	FY94			FY95			FY96			FY97		
Element of Cost	QUANT	UNIT COST	TOTAL COST	QUANT	UNIT COST	TOTAL COST	QUANT	UNIT COST	TOTAL COST	QUANT	UNIT COST	TOTAL COST
Installation												
Testing												
Equipment							Var		399.0	Var		179.0
TOTAL									399.0			179.0

The expansion of current Video/Electronic Boardroom capabilities planned for the NCCOSC In-Service Engineering East Coast Division (NISE East) Headquarters will directly support the Command as it executes the BRAC ordered transition from four separate work sites to the consolidated facility in Charleston, S.C. by allowing the organization established under BRAC to remain productive through avoidance of per diem and other travel costs and lost worker time while travelling. Without this system, the cost of managing the BRAC established NISE East organization will be significantly higher than budgeted.

NISE East began in FY95 to establish a Video Teleconferencing (VTC) Network along with an Electronic Boardroom Facility. The network will support NISE East Charleston and its detachments at Norfolk, VA; St. Inigoes, MD; and Washington DC. The network will eliminate time-comsuming cross reference of available air time facilities. The network will also allow audio/video connections as a network node located in Charleston. The advantages of the network will be realized in travel and per diem cost avoidances. Productivity savings will be result from minimizing travel due to numerous simultaneous "on the air" meetings.

The system will consist of the following items:

Digital Access Control System	Infrared wireless remote control	Databeams
Multi Control Unit	Video Editing console	Codec unit
Video projection capabilities	White boards with hard copy and electronic copy capabilities	Overhead/document cameras and lights
Front/rear projection screens	Multi Channel Audio System	

The current Video Teleconferencing Facility will recieve additional equipment to incorporate greater system configurations. The NISE East studios will receive full studio audio/video/data setups. All sites, including the elctronic boardroom, will be monitored by a video editing console. Remote VTC

000608

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION ($ in Thousands)	A. FY 1996/1997 Biennial Budget Estimate	
B. Navy/Research & Development	C. L0030 Videoteleconferencing System - New Mission (Continued)	D. NCCOSC

	FY94			FY95			FY96			FY97		
Element of Cost	QUANT	UNIT COST	TOTAL COST	QUANT	UNIT COST	TOTAL COST	QUANT	UNIT COST	TOTAL COST	QUANT	UNIT COST	TOTAL COST
Installation												
Testing												
Equipment												
TOTAL												

capabilities will expand the "on site" effect as "live" training, demonstrations and meetings take place.

The Digital Access Control System (DACS) will be used in the current Charleston studio to enable the configuration of the calls, and will also be used for network control with the additional studios and equipment. The network would be inflexible without this vital piece of equipment. The DACS will be used to allow network connections to be made at variable bandwidths to various sites on an on-demand basis. This will provide the best possible use of the network trunks and allow connections to various sites operating at various bandwidths.

The network will be controlled from the Charleston site. This control will be managed via the DACS and a Multipoint Control Unit (MCU). This equipment allows the configuration of all VTC calls and can functionally carry out the setup of several meetings at once. This equipment is essential to the operation of the network. It is the main focal point for multipoint conferences and studio scheduling. Its purchase is vital, for without it the network cannot meet its requirements. The MCU will allow the elimination of time-consuming schedule cross-referencing and allow all NISE East personnel to increase their productivity by reducing travel time while also reducing travel and per diem costs.

NISE East currently has a video studio in which the analog and video signals are digitized and compressed. This signal is sent thru a T-1 circuit to the network hub. The Codec is the single most vital piece of equipment because it converts the analog video and audio signals into a digital data stream which can then be transmitted via digital circuits. The Codec has features built in such as picture in picture and stacked screen. There are also ports built in to allow other data to be embedded in the data stream and transmitted concurrently with the audio and video signals. This equipment is essential to the operation of any cart type video system.

000609

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION ($ in Thousands)	A. FY 1996/1997 Biennial Budget Estimate
B. Navy/Research & Development	C. L0030 Videoteleconferencing System - New Mission (Continued) / D. NCCOSC

	FY94			FY95			FY96			FY97		
Element of Cost	QUANT	UNIT COST	TOTAL COST	QUANT	UNIT COST	TOTAL COST	QUANT	UNIT COST	TOTAL COST	QUANT	UNIT COST	TOTAL COST
Installation												
Testing												
Equipment												
TOTAL												

The Databeam is a high resolution graphics system that allows graphics (such as a brief or report) to be viewed and manipulated during a video conference. This system allows for viewing of graphics during a conference. An additional feature of the Databeam is the ability to transfer hardcopy or disk files during a conference. This function is carried out transparently to the attendees. The databeam scanner allows documents to be scanned and hardcopy files to be transferred to another studio which also has a databeam.

NISE East will be establishing several audio systems. The equipment will vary by site based on their requirements. Stabilizers, equalizers, speakers, microphone systems, mixing consoles, and amplifying equipment will be the basis of the audio system installations. This equipment will support the VTC/ Electronic boardrooms and any additional remote requirements.

Front/Rear projection screens allow a clearer resolution of the intended materials to be viewed. In-wall electrical screens create the best presentation abilities. These screens allow advantages such as eliminating projector noise and not having a projector beam, therefore eliminating the fuzzy appearance on the screen while also increasing VTC seating capacity.

Video projectors allow high resolution computer graphics and data to be displayed via the front/rear projection screens. This product is a necessity, as it is compatible with most currently available computers. By recognizing the frequencies of an input signal, precise images can be displayed. Another advantage is the wide screen coverage on the front/rear screens that the projector provides. Fan noise is not heard if the projector is mounted on the ceiling and manipulated by remote control. This gives a presentation a flawless quality and allows viewers to concentrate solely on the presentation materials.

000610

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION
($ in Thousands)

A. FY 1996/1997 Biennial Budget Estimate

B. Navy/Research & Development

C. L0029 - Telecommunications Equipment - (> $50,000, < $100,000)

D. NCCOSC

Element of Cost	FY94 QUANT	FY94 UNIT COST	FY94 TOTAL COST	FY95 QUANT	FY95 UNIT COST	FY95 TOTAL COST	FY96 QUANT	FY96 UNIT COST	FY96 TOTAL COST	FY97 QUANT	FY97 UNIT COST	FY97 TOTAL COST
Installation												
Testing												
Equipment							VAR		285.0			0.0
TOTAL									285.0			0.0

NCCOSC's telecommunications requirements can be broken down as follows:

	FY96	FY97
A) Scientific/Technical Equipment State-of-the-art High Frequency (HF) communications equipment including power amplifier/microwave power devices, and X-band down converter/SHF/SAT will allow NRaD to keep pace with the latest commercial equipment and relationship to Navy applications.	90	0
B) Phone switches - upgrade from analog switches to ISDN switches (3)	195	0

000611

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION
($ in Thousands)

A. FY 1996/1997 Biennial Budget Estimate

B. Navy/Research & Development

C. L0034 Radio Frequency Sensor Laboratory - New Mission

D. NCCOSC

Element of Cost	FY94 QUANT	FY94 UNIT COST	FY94 TOTAL COST	FY95 QUANT	FY95 UNIT COST	FY95 TOTAL COST	FY96 QUANT	FY96 UNIT COST	FY96 TOTAL COST	FY97 QUANT	FY97 UNIT COST	FY97 TOTAL COST
Installation												
Testing												
Equipment							1		280.0			
TOTAL									280.0			

DESCRIPTION

Construction of a second story is necessary to enable the development of a radio frequency (RF) sensor facility to support NCCOSC RDT&E Division tasks. Currently there is not sufficient office and laboratory space for personnel supporting RF sensor programs such as Combat Direction Finding, Outboard, Ships Signal Exploitation Equipment (SSEE), and Consolidated Outboard Logistics Upgrade (COBLU). Currently, program personnel and facilities are logistically separated, and personnel must commute between work areas. The second story addition will allow program personnel and the RF sensor laboratory to be consolidated in one area, within walking distance of the RF Sensor Anechoic Chamber and Sensitive Compartmental Information (SCI) facilities. Construction of a deck on top of the second story will permit an unrestricted bay and ocean view to be used for development of the RF front-end components used for tactical cryptological systems. The facility itself will cost $250K, with $30K for design, Supervision, Inspection and Overhead (SIOH), and the fee for the Resident Officer in Charge of Construction (ROICC).

000612

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION ($ in Thousands)	A. FY 1996/1997 Biennial Budget Estimate	
B. Navy/Research & Development	C. L0035 Electromagnetic Laboratory - New Mission	D. NCCOSC

	FY94			FY95			FY96			FY97		
Element of Cost	QUANT	UNIT COST	TOTAL COST	QUANT	UNIT COST	TOTAL COST	QUANT	UNIT COST	TOTAL COST	QUANT	UNIT COST	TOTAL COST
Installation												
Testing												
Equipment										1		252.0
TOTAL												252.0

DESCRIPTION

Construction of a second story will provide additional classified work space for Electromagnetic projects at the NCCOSC RDT&E Division (i.e., PRISM, ATLANTIS, Communication Countermeasures, High Frequency Broadband Antenna System, and TAC SIGINT technology programs). The building is currently used for processing classified work. Work in impulse radar, non-acoustic ASW programs supporting mine and information warfare, and counter-measures techniques requires work space and reference material at the Sensitive Compartmental Information (SCI) classification level. The first floor will be dedicated to processing analysis, with the second floor used for analysis report generation and reference material. The second floor will allow the processing capability installed on the first floor to be fully utilized by project personnel. Additionally, this project will provide a central location for personnel requiring work space at the SCI classification level. The facility itself will cost $225K, with $27K for design, Supervision, Inspection, and Overhead (SIOH), and the fee for the Resident Officer in Charge of Construction (ROICC).

000613

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION
($ in Thousands)

A. FY 1996/1997 Biennial Budget Estimate

B. Navy/Research & Development

C. L0033 Minor Construction < $200,000, < $300,000 - New Mission

D. NCCOSC

Element of Cost	FY94 QUANT	FY94 UNIT COST	FY94 TOTAL COST	FY95 QUANT	FY95 UNIT COST	FY95 TOTAL COST	FY96 QUANT	FY96 UNIT COST	FY96 TOTAL COST	FY97 QUANT	FY97 UNIT COST	FY97 TOTAL COST
Installation												
Testing												
Equipment							7		600.0	4		445.0
TOTAL									600.0			445.0

DESCRIPTION

Minor Construction is used by the NCCOSC research, development, and engineering centers to accommodate new requirements, modernize, and replace obsolete facilities. The centers are located in 18 sites throughout the nation and have 4.01 million square feet of laboratory and office space. Minor construction is used at NCCOSC activities to:

- modify existing spaces to provide suitable space to test and design new equipment (often in a protected environment) for the forces afloat
- construct new facilities to provide suitable space to test and design new equipment, frequently in physically secure areas
- upgrade hazardous waste facilities to ensure compliance with applicable laws/regulations
- improve existing security measures

000614

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)							A. Budget Submission FY 1996/1997 Biennial Budget Estimate					
B. Component/Business Area/Date Department of the Navy Research and Development	C. Line No. & Item Description Non-ADP Equipment (Replacement) >$500,000 Solid State Multinuclear Spectrometer						D. Activity Identification Naval Research Laboratory					
	FY 1994			FY 1995			FY 1996			FY 1997		
Element of Cost	Quan	Unit Cost	Total Cost	Quan	Unit Cost	Total Cost	Quan	Unit Cost	Total Cost	Quan	Unit Cost	Total Cost
Solid State Multinuclear Spectrometer							1	1	1,200			

Narrative Justification:

NRL conducts basic and applied research and development studies in the broad fields of chemical diagnostics, reaction rate control materials chemistry, surface and electrochemistry, combustion, and fuels chemistry. Specialized programs within these fields include organic polymeric materials, coatings, dynamics, laser chemistry, tribology, physical and chemical characterization of surfaces and theory of surfaces, chemistry of electronic materials, submarine atmosphere analysis and control, nanometer scale phenomena, sensors, and solution chemistry.
This item is a high field (500 MHz), wide bore (89 mm) multinuclear research nuclear magnetic resonance spectrometer for solids and liquids. It will supplement an aging MSL-300 instrument purchased in 1984. The new instrument will have new, and necessary, capabilities: a) higher field for greater spectral resolution; b) higher field to explore the use of induced magnetization to transfer NMR coherence over distances of 1 micron; and c) solid state triple resonance experiments. The current instrument will be retained for less demanding experiments so long as its increasing failures can be repaired at reasonable cost. This instrument is crucial to state-of-the-art characterization of organic and polymeric materials, to innovative non-destructive analysis and to the continued evolution of more powerful nuclear magnetic resonance techniques.

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)							A. Budget Submission FY 1996/1997 Biennial Budget Estimate					
B. Component/Business Area/Date Department of the Navy Research and Development	C. Line No. & Item Description Non-ADP Equipment (Replacement) >$500,000 Satellite Data Receiving and Processing System						D. Activity Identification Naval Research Laboratory					
	FY 1994			FY 1995			FY 1996			FY 1997		
Element of Cost	Quan	Unit Cost	Total Cost	Quan	Unit Cost	Total Cost	Quan	Unit Cost	Total Cost	Quan	Unit Cost	Total Cost
Satellite Data Receiving and Processing System							1	720	720			

Narrative Justification:

NRL receives and processes many satellite image data sets, such as the Advanced Very High Resolution Radiometer (AVHRR), Coastal Zone Color Scanner (CSCS), Defense Meteorological Satellite Program (DMSP), and Advanced Visible and Infrared Imaging Spectrometere (AVIRIS), and other datasets which are all utilized in large quantities for research. Image datasets require large amounts of mass storage. A single satellite image dataset can often contain hundreds of megabytes. Present data reception includes National Oceanographic and Atmospheric Administration (NOAA) and Defense Meteorological Satellite Program (DMSP) data, both global and line-of-sight processed on one computer system. The system consists of a 1970's technology Gould mini-computer. The existing equipment has become very unreliable with constant maintenance of both hardware and programming. This maintenance support is becoming unavailable due to the age of the equipment. The upgrade will provide NRL with a capability that exceeds that of the present system and will operate with a very low maintenance cost.

000616

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)		A. Budget Submission FY 1996/1997 Biennial Budget Estimate
B. Component/Business Area/Date Department of the Navy Research and Development	C. Line No. & Item Description Non-ADP Equipment (Replacement) >$500,000 100KV E-beam Lithography System	D. Activity Identification Naval Research Laboratory

	FY 1994			FY 1995			FY 1996			FY 1997		
Element of Cost	Quan	Unit Cost	Total Cost	Quan	Unit Cost	Total Cost	Quan	Unit Cost	Total Cost	Quan	Unit Cost	Total Cost
100KV E-beam Lithography System										1	2,500	2,500

Narrative Justification:

The drive in advanced electronics research is to ever smaller critical dimensions, more precise pattern placement and complete circuits rather than individual devices. Many non-electronics applications (such as Fresnel Optics, Nano-engraving, and Precision Engineering) also require sub 100 nm geometries. Here, the main problem is often the ability to write arbitrary patterns containing complex geometric shapes such as curves and circles. With existing e-beam machines this leads to huge pattern files which are impossible to process. The purchase of the 100 kv Leica-Cambridge tool will alleviate this problem and provide a quantum leap in the lithographic capability of the Nanoelectronics Processing Facility and thus the entire NRL community. The present nanowriter (JEOL JBX-5DII) is being constantly utilized and yet is still incapable of meeting the level of workload, causing program delays. The Leica Cambridge tool will be complimentary to the JEOL and a quantum leap improvement over our second e-beam writer, the Cambridge EBMF 6.5. The new tool will replace the Cambridge EBMF 6.5. Compared to the EBMF 6.5, the e-beam lithography system has nearly an order of magnitude better resolution (25 vs 200 nm), is 4x faster (25 vs 6 MHz), has five times the beam energy (100 kV vs 20 kV), has a vastly superior pattern generator and has a superior pattern placement specification (30 nm vs 100 nm). In conjunction with the JEOL nanowriter, the new tool will provide NRL with an e-beam lithography suite which is truly state-of-the-art. Programs covered include Nanoelectronics ARI, Plasma Processing ARI, Electronic Materials ONR/T, Field Emission Array ONR/T, ARPA Advanced Lithography Program, Molecular Sensing ONR/T, Shipley CRADA, RF Devices ONR/T and MIMIC ARPA (Microwave/Millimeter Wave Monolithic Integrated Circuits).

000617

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)							A. Budget Submission FY 1996/1997 Biennial Budget Estimate					
B. Component/Business Area/Date Department of the Navy Research and Development	C. Line No. & Item Description Non-ADP Equipment (Replacement) >$500,000 Gas Source Metal-Organic Molecular Beam Epitaxy System						D. Activity Identification Naval Research Laboratory					
	FY 1994			FY 1995			FY 1996			FY 1997		
Element of Cost	Quan	Unit Cost	Total Cost	Quan	Unit Cost	Total Cost	Quan	Unit Cost	Total Cost	Quan	Unit Cost	Total Cost
Gas Source Metal-Organic Molecular Beam Epitaxy System										1	1,400	1,400

Narrative Justification:

NRL has a research mission in the areas of growth, high power, high frequency state-of-the-art microwave and millimeter wave devices and the utilization of state-of-the-art growth techniques for the fabrication of these devices. In addition, NRL is working in areas which require the ultimate in heterostructure engineering for the design and fabrication of structures and devices which utilize quantum efforts for the generation novel electronic functions. Much of the cutting edge of III-V and related compound MBE research is in areas which require gas sources, for instance phosphorus-based compounds. This capability is particularly important for millimeter wave power and low noise devices and integrated circuits which are becoming increasingly important for both commercial and military applications. It is also key for nanoelectronic device research which is being undertaken to overcome the fundamental limitations inherent in simply scaling conventional silicon microelectronic technology to smaller dimensions. NRL is currently unable to adequately work in these areas because it has no easily accessible gas source MBE system. The acquisition of such a system would not only allow us to work in these new areas but it would also upgrade our general capabilities in that this new machine would have state-of-the-art growth and diagnostic equipment. Obtaining material grown externally from the limited number of gas source MOMBE systems available is severely restricting. Advance material growth research must be performed internally to optimize specific growth parameters, ensure material quality, and maintain control over material growth flexibility and timeliness. Projects supported by this equipment are Nanoelectronic Accelerated Research Initiative, Heterostructures for Microwave and Millimeter wave devices.

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)		A. Budget Submission FY 1996/1997 Biennial Budget Estimate
B. Component/Business Area/Date Department of the Navy Research and Development	C. Line No. & Item Description Non-ADP Equipment (Replacement) >$500,000 Multimode Towed Vehicle for Mine Research Facility	D. Activity Identification Naval Research Laboratory

	FY 1994			FY 1995			FY 1996			FY 1997		
Element of Cost	Quan	Unit Cost	Total Cost	Quan	Unit Cost	Total Cost	Quan	Unit Cost	Total Cost	Quan	Unit Cost	Total Cost
Multimode Towed Vehicle for Mine Research Facility										1	553	553

Narrative Justification:

The physics that control the variability of the acoustic and optical properties of shallow-water coastal areas are not understood or in most cases not even identified. While mean values of the bottom reverberation, optical reflectance, and bottom clutter, can be obtained from stationary platforms (NRL's high-frequency programs), it is the variability of these properties that has the greatest impact on high-resolution target imaging systems. To this date no experiments have been designed to provide measurements of these spatial variability's along tracks in shallow-water coastal areas, and until now, no organization has had the capability or the experience to address these issues. However, configuring this body with optical and acoustic sensors and combining these measurements with concurrent high-resolution environmental data (Coastal Benthic Boundary Layer (CBBL)) would enable NRL scientists to obtain data and develop and validate basic models that describe the physics that control the acoustic and optical variability of various coastal environments. In addition, to simulate the performance of current and future detection and classification systems (Coastal System Station (CSS) requires acoustic and optical variability data over a wide range of different environmental conditions.) This combination of a stable tow body, acoustic and optical sensors will enable NRL to support these current and any future acoustic and optical Mine Countermeasure (MCM) system developments at CSS. Research programs supported include High-Frequency Scattering, Environmental Physics for MCM, High-Resolution MCM, Optics, Influence of bubbles on Naval Systems, and Tasks associated with the Center for Mine Research at NRL.

000619

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)							A. Budget Submission FY 1996/1997 Biennial Budget Estimate					
B. Component/Business Area/Date Department of the Navy Research and Development	C. Line No. & Item Description Non-ADP Equipment (Replacement) >$500,000 UV/X-ray Science Laboratory						D. Activity Identification Naval Research Laboratory					
	FY 1994			FY 1995			FY 1996			FY 1997		
Element of Cost	Quan	Unit Cost	Total Cost	Quan	Unit Cost	Total Cost	Quan	Unit Cost	Total Cost	Quan	Unit Cost	Total Cost
UV/X-ray Science Laboratory										1	552	552

Narrative Justification:

NRL has been executing a very productive exploratory development effort to assess the suitability of diamond photodetectors for Ultra Violet (UV) and Vacuum Ultra Violet (VUV) detection. NRL has been working with Lincoln Laboratories and various small business, also NRL has attracted the interest of the Office of Naval Research, National Aeronautics Space Administration as well as several businesses. In order to capitalize on this position and organize larger, developmental programs for these sponsors, we propose to construct a laboratory dedicated to testing and processing experimental diamond photodetectors. These devices are difficult to test because they may have small or non-uniform responsive areas. Existing test facilities are not adaptable to these kinds of devices or are in full use supporting existing programs. Dedicated processing facilities are required that either do not exist or would be contaminated by these detectors. The electrochemical etching apparatus has so far only been shown to be useful for cleaning diamond. The annealing apparatus is required because existing furnaces for semiconductor processing would be contaminated by the materials likely to be present on our photodetectors. The UV and soft X-ray systems will be configured to test small-area devices more easily than existing facilities. These may all be useful for testing experimental detectors developed in other programs at NRL.

This facility will also directly support the development of multi-layer coatings for X-ray optics. Techniques for imaging soft x-rays using normal-incidence multilayer mirrors were recently developed at NRL. Civilian applications of this work include x-ray projection lithography and the imaging of biological specimens using the nanosecond-duration x-ray aburst from the laser-produced plasma. Continued progress in the field requires a detector with the sensitivity, dynamic range, and time resolution which is only achievable with the gated MCP/CCD camera described here.

000620

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)							A. Budget Submission FY 1996/1997 Biennial Budget Estimate					
B. Component/Business Area/Date Department of the Navy Research and Development	C. Line No. & Item Description Non-ADP Equipment (Replacement) >$500,000 3-D Doppler Vibrometer						D. Activity Identification Naval Research Laboratory					
	FY 1994			FY 1995			FY 1996			FY 1997		
Element of Cost	Quan	Unit Cost	Total Cost	Quan	Unit Cost	Total Cost	Quan	Unit Cost	Total Cost	Quan	Unit Cost	Total Cost
3-D Doppler Vibrometer										1	547	547

Narrative Justification:

NRL is actively involved in extending its Structural Acoustics measurements capability from underwater systems to in-air systems. To this end, an advanced system will house a new Nearfield Acoustical Holography Scanner. In addition, the 3-D Laser Doppler Vibrometer will significantly enhance structural vibration data acquisition. Research Programs supported are Apparent Damping, Target Cross-Section Characteristics, Active Target Characteristics, Internal Noise, Aircraft Structures and Cradle/Truss Structure Program.

000621

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)		A. Budget Submission FY 1996/1997 Biennial Budget Estimate
B. Component/Business Area/Date Department of the Navy Research and Development	C. Line No. & Item Description Non-ADP Equipment >$50,000 <$500,000	D. Activity Identification Naval Research Laboratory

	FY 1994			FY 1995			FY 1996			FY 1997		
Element of Cost	Quan	Unit Cost	Total Cost	Quan	Unit Cost	Total Cost	Quan	Unit Cost	Total Cost	Quan	Unit Cost	Total Cost
Non-ADP Equipment >$50,000 <$500,000							87		6618	59		2986

Narrative Justification:

The Naval Research Laboratory investment in non-ADP equipment costing between $25K and $200K provides the most impact to the greatest number of people and projects supported by the Laboratory. Items purchased include items such as oscilloscopes, spectrometers, waveform generators and microscopes for research divisions.

The Naval Research Laboratory is a highly technical and sophisticated research center requiring state-of-the-art technology to satisfactorily accomplish its mission. Much of the equipment planned for purchase replaces items that are currently operating in a degraded mode because of their age and the fact that the technology no longer supports current and projected requirements. The need to maintain an up-to-date equipment base encompasses all phases of NRL from management and infrastructure support to areas of science, technology, warfare systems, sensors research, materials and space technology. Research and development timetables and rapid equipment would result in higher costs, time delays and limit the Laboratory's ability to deal in an arena of advanced technology problems and taskings.

239000

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)							A. Budget Submission FY 1996/1997 Biennial Budget Estimate					
B. Component/Business Area/Date Department of the Navy Research and Development	C. Line No. & Item Description ADP Equipment (Replacement) >$100,000 Silicon Graphics Inc. (SGI) Power Challenge XL8 Processor, 300 Mflop Computer						D. Activity Identification Naval Research Laboratory					
	FY 1994			FY 1995			FY 1996			FY 1997		
Element of Cost	Quan	Unit Cost	Total Cost	Quan	Unit Cost	Total Cost	Quan	Unit Cost	Total Cost	Quan	Unit Cost	Total Cost
Silicon Graphics Inc. (SGI) Power Challenge XL8 Processor, 300 Mflop Computer							1	635	635			

Narrative Justification:

An eight processor SGI Power Challenge SL will serve as the real time calculation device for simulation as well as a classified computer for acoustic research users. Access to this computer and databases via the Tactical Oceanography Wide Area Network (TOWAN) will require a classified room, NES encryption, Internet connection, etc. The equipment is 100% compatible with installed equipment within the Tactical Oceanography Simulation Laboratory (TOSL) as well as existing and planned equipment for other simulation capabilities at various laboratories. ONI, NAVAIR and SPAWAR have already funded programs at NRL-SSC for modeling and simulation efforts. The Naval Doctrine Command (NDOC) and Surface Warfare Development Group (SWDG) have plans to fund the application of state-of-the-art modeling and simulation capabilities, but a dedicated multiple processing capability is required.

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)							A. Budget Submission FY 1996/1997 Biennial Budget Estimate					
B. Component/Business Area/Date Department of the Navy Research and Development	C. Line No. & Item Description ADP Equipment (New Mission) >$100,000 Silicon Graphics Power Challent XL Computer Expansion						D. Activity Identification Naval Research Laboratory					
	FY 1994			FY 1995			FY 1996			FY 1997		
Element of Cost	Quan	Unit Cost	Total Cost	Quan	Unit Cost	Total Cost	Quan	Unit Cost	Total Cost	Quan	Unit Cost	Total Cost
Silicon Graphics Power Challent XL Computer Expansion							1	162	162			

Narrative Justification:

NRL conducts basic and applied research in meteorology and supports vital Atmospheric Modeling, Atmospheric Data Assimilation, Remote Sensing, Simulation and Visualization, and Shipboard Tactical Atmospheric Forecast Capability (STAFC) programs. To maintain the capability of responding quickly to research priorities requires an upgrade/expansion of the current supercomputer resource for development of advanced numerical weather prediction models/data assimilation systems.

000624

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)							A. Budget Submission FY 1996/1997 Biennial Budget Estimate					
B. Component/Business Area/Date Department of the Navy Research and Development	C. Line No. & Item Description ADP Equipment (Replacement) >$100,000 400 GB Redundant Array of Inexpensive Disks (RAID)						D. Activity Identification Naval Research Laboratory					
	FY 1994			FY 1995			FY 1996			FY 1997		
Element of Cost	Quan	Unit Cost	Total Cost	Quan	Unit Cost	Total Cost	Quan	Unit Cost	Total Cost	Quan	Unit Cost	Total Cost
400 GB Redundant Array of Inexpensive Disks (RAID)							1	100	100			

Narrative Justification:

This item is in support of the USA (Unconventional Stellar Aspect), HIRAAS (High Ionosphere Resolution Airglow/Auroral Spectrograph), and GIMI (Global Imaging Monitor of the Ionosphere) projects scheduled for launch on the ARGOS (Advanced Research and Global Observation Satellite) Air Force STP-P91 satellite in 1995. Data from these experiments will be processed at NRL and archived to magnetic tape and stored. For actual data analysis, the processed data set must be moved from the archive to online high-speed disk storage for rapid access and analysis. The RAID is a critical acquisition given the magnitude of the data anticipated from ARGOS which cannot be accomodated with existing systems.

000625

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)							A. Budget Submission FY 1996/1997 Biennial Budget Estimate					
B. Component/Business Area/Date Department of the Navy Research and Development	C. Line No. & Item Description ADP Equipment (Replacement) >$100,000 Reality Engine Upgrade						D. Activity Identification Naval Research Laboratory					
	FY 1994			FY 1995			FY 1996			FY 1997		
Element of Cost	Quan	Unit Cost	Total Cost	Quan	Unit Cost	Total Cost	Quan	Unit Cost	Total Cost	Quan	Unit Cost	Total Cost
Reality Engine Upgrade							1	100	100			

Narrative Justification:

NRL conducts research and development programs in the collection, transmission, and processing of information to provide a basis for improving the conduct of military operations. This upgraded processing speed will permit the data flow required by all of the projects that rely on the processing of visual information on a regular basis. These projects include: terrain maps for decision support systems; images for research in active control technologies; development of processing graph tools; and the interactive display required for research in virtual reality. The Reality engine provides a factor of 4 increase in performance of the Onyx graphics computer that is currently in use. This increase is critical to providing more realistic virtual reality experiments. This hardware will support research efforts in a variety of areas such as with the Ballistic Missile Defense Organization (BMDO), project SPOTLIGHT, and project W for the Advanced Research Projects Agency (ARPA). The mission impact will be to increase the reality and size of the simulations being examined by scientists working on the above critical programs.

000636

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)							A. Budget Submission FY 1996/1997 Biennial Budget Estimate					
B. Component/Business Area/Date Department of the Navy Research and Development	C. Line No. & Item Description ADP Equipment (Replacement) >$100,000 Adaptive Solutions Logical Connection Machine						D. Activity Identification Naval Research Laboratory					
	FY 1994			FY 1995			FY 1996			FY 1997		
Element of Cost	Quan	Unit Cost	Total Cost	Quan	Unit Cost	Total Cost	Quan	Unit Cost	Total Cost	Quan	Unit Cost	Total Cost
Adaptive Solutions Logical Connection Machine							1	115	115			

Narrative Justification:

The Adaptive Solution Logical Connection Machine (CNAPS) will process data from different types of array sensors in real time with appropriate high speed input and video outputs. The machine architecture is suitable for traditional signal processing and adaptive neural network processing. NRL has done research for Neural Networks and Adaptive Retina like processing over the past several years that have resulted in successful demonstrations of non-uniformity correction (NUC) for IRFPA (infrared focal plane array sensors). This work has been well received by the detectors community and NRL has recently begun planning to perform a real-time demonstration of the adaptive NUC technique in a field environment. Unfortunately, the Numerix Array Processor used to demonstrate the neural networks is not suitable for testing in a field environment due to its size, weight, and power consumption. The CNAPS processor will expand NRL's capability to perform adaptive NUC in the field environment and it will give NRL the ability to perform virtually any field test since the CNAPS is fieldable.

000627

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)							A. Budget Submission FY 1996/1997 Biennial Budget Estimate					
B. Component/Business Area/Date Department of the Navy Research and Development	C. Line No. & Item Description ADP Equipment (Replacement) >$100,000 Gigaswitch Network Interconnect, Total Floating Point Processors and Workstation Server						D. Activity Identification Naval Research Laboratory					
	FY 1994			FY 1995			FY 1996			FY 1997		
Element of Cost	Quan	Unit Cost	Total Cost	Quan	Unit Cost	Total Cost	Quan	Unit Cost	Total Cost	Quan	Unit Cost	Total Cost
Gigaswitch Network Interconnect, Total Floating Point Processors and Workstation Server							1	228	228			

Narrative Justification:

Acquire a high speed network interconnect to enable the maximum productive use of the compute servers (CS). This Giga-Switch would operate together with the CSs to provide both a platform for large calculations that would not fit on a single machine, as well as a development configuration for prototyping codes for eventual large production runs on remote high performance computers and other massively parallel systems. The Onyx Total Floating Point (TFP) performance processors are very strong computational processors, utilizing state-of-the-art compilers and software support to allow a global memory symmetric multi-processing paradigm. The total power of the TFP processors would be thrown all at one demanding problem such as the realtime helicopter/ship leading simulations or at other complex virtual realities.

000628

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)							A. Budget Submission FY 1996/1997 Biennial Budget Estimate					
B. Component/Business Area/Date Department of the Navy Research and Development	C. Line No. & Item Description ADP Equipment (Replacement) >$100,000 High Speed, Broadband Data Acquisition System						D. Activity Identification Naval Research Laboratory					
	FY 1994			FY 1995			FY 1996			FY 1997		
Element of Cost	Quan	Unit Cost	Total Cost	Quan	Unit Cost	Total Cost	Quan	Unit Cost	Total Cost	Quan	Unit Cost	Total Cost
High Speed, Broadband Data Acquisition System										1	830	830

Narrative Justification:

Existing acoustic array assets provide more channels (160) than any available data acquisition system, but the present systems cannot accommodate either the bandwidth or the numbers of channels of present day prototype optic arrays (100 channels, 120 dB dynamic range and a 0 to 20 kHz frequency range). This acquisition system can handle the number of channels and the frequency bandwidth of existing optic arrays and facilitate an up-grade to the system as A/D technology matures and digitizers with the resolution, dynamic range and bandwidth become available. As the 24-bit technology matures it will be integrated into the data acquisition system to meet the end goals of the acquisition system. Some of the programs supported are: Navy 6.2 Shallow Water Projects, Full Spectrum Noise Program, Matched Field Processing in Shallow Water, etc.

629000

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)							A. Budget Submission FY 1996/1997 Biennial Budget Estimate					
B. Component/Business Area/Date Department of the Navy Research and Development	C. Line No. & Item Description ADP Equipment (Replacement) >$100,000 Virtual-Reality Computer System Enhancements						D. Activity Identification Naval Research Laboratory					
	FY 1994			FY 1995			FY 1996			FY 1997		
Element of Cost	Quan	Unit Cost	Total Cost	Quan	Unit Cost	Total Cost	Quan	Unit Cost	Total Cost	Quan	Unit Cost	Total Cost
Virtual-Reality Computer System Enhancements										1	560	560

Narrative Justification:

In FY94, NRL acquired a parallel processing, virtual reality computer to support interactive simulation, data visualization and analysis activities and to explore the application of virtual reality techniques to these areas. To adequately pursue these activities, the Virtual-Reality Computer System enhancements to the current system are required. The new processors will increase computational performance by a factor of 20 and the graphics upgrade will allow dynamic display of more complex graphics including real-time texture mapping. High speed disks are required to provide high performance swap space for the expanded memory and to provide high speed storage and retrieval of simulation and analysis databases. These upgrades will significantly enhance simulation capabilities and dramatically increase the size of data sets which can be visualized. The overall improved system will allow visualization of larger more complex data sets and support more robust simulations in near real time. This system supports a variety of research programs with Space Sciences.

000630

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)							A. Budget Submission FY 1996/1997 Biennial Budget Estimate					
B. Component/Business Area/Date Department of the Navy Research and Development	C. Line No. & Item Description ADP Equipment (Replacement) >$100,000 Compute Server Upgrade						D. Activity Identification Naval Research Laboratory					
	FY 1994			FY 1995			FY 1996			FY 1997		
Element of Cost	Quan	Unit Cost	Total Cost	Quan	Unit Cost	Total Cost	Quan	Unit Cost	Total Cost	Quan	Unit Cost	Total Cost
Compute Server Upgrade										1	500	500

Narrative Justification:

An upgrade replacement for the current Cray Y-MP/EL is required to provide NRL computer users with a compute server platform and software to support local code development, scientific visualization, and small scale simulations. A replacement of the current system will allow for increased capability, better compatability with high-performance computing systems and decreased operating costs. Cray EL systems with improved performance, larger memories, faster disks, and improved network interfaces are available. This newer system will allow NRL local computing capability to keep relative pace with the newer, larger, and faster DoD HPC-MP systems for which it can act as a local interface. If the Cray Y-MP/EL system does not keep pace with the computational and storage needs at NRL the individual computer systems administrators and scientists will be forced to acquire their own solutions at a much greater overall cost than that of the central facility. Supports overall NRL research community.

000631

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION (Dollars in Thousands)							A. Budget Submission FY 1996/1997 Biennial Budget Estimate					
B. Component/Business Area/Date Department of the Navy Research and Development	C. Line No. & Item Description ADP Equipment >$50,000 <$100,000						D. Activity Identification Naval Research Laboratory					
	FY 1994			FY 1995			FY 1996			FY 1997		
Element of Cost	Quan	Unit Cost	Total Cost	Quan	Unit Cost	Total Cost	Quan	Unit Cost	Total Cost	Quan	Unit Cost	Total Cost
ADP Equipment >$50,000 <$100,000							61		4592	66		4042

Narrative Justification:

At the core of much of highly technical and sophisticated research accomplished at the Naval Research Laboratory are equally technical and sophisticated computer systems. NRL research divisions make use of a wide variety of computers to accomplish the objectives of R&D projects. The uniqueness and complexity of these projects requires equally unique and complex ADP suppport.

Investment in workstations to include PC and LAN hardware is necessary to meet external requirements, compensate for personnel reductions and to reduce operating costs. In addition, upgrades are required because manufacturers will not support obsolete operating systems/equipment. The items scheduled for purchase are the minimum necessary to meet daily R&D mission operating requirements, effectively manage R&D resources and meet customers R&D requirements. Examples of items to be purchased are ITD server system upgrades, silicon graphics, portable workstations and workstations upgrades, imaging processing systems, etc.

0006632

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION ($ in Thousands)										A. FY 1996/1997 Biennial Budget Estimate		
B. DON/RESEARCH AND DEVELOPMENT				C. 0001 Equipment Non ADPE- Replacement						D. NFESC, Port Hueneme		
	FY 1994			FY 1995			FY 1996			FY 1997		
Element of Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
Equipment Non ADPE							5		411	4		267
TOTAL									411			267

Narrative Justification:

The Naval Facilities Engineering Service Center (NFESC) plans to replace outdated equipment to ensure the continued capability of Facilities, Ocean, Energy and Environmental Departments in support of the Naval Shore mission. Replacement of the equipment is essential to eliminate uneconomical repairs. Equipment requirements to support RDT&E and Engineering Services to include high technology components for precision machinery, instrumentation and measurement on site in the field. Equipment purchases will support an environmental quality, energy efficiency, ocean construction, electronic projects and facilities life cycle management products and services. Equipment replacementswill be required to sustain operations at current levels.

0006633

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION ($ in Thousands)										A. FY 1996/1997 Biennial Budget Estimate		
B. DON/Research and Development				C. 0003 ADPE & TELECOM						D. NFESC, Port Hueneme		
	FY 1994			FY 1995			FY 1996			FY 1997		
Element of Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
Equipment ADPE & Telecomm							3		257	3		283
TOTAL									257			283

Narrative Justification:

Our current network operations are outdated and lack the needed capability and flexibility required to support current business applications and security requirements. We are dependent upon corporate network facilities to accomodate our growing communication file transfer and data base needs. Our plan is to fully integrate local area networks and wide area networking capability within the east and west NFESC. ADPE will be required to install state of the practice electronic networking to fully integrate operation.

000634

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION ($ in Thousands)										A. FY 1996/1997 Biennial Budget Estimate		
B. DON/Research and Development				C. 0004 Software Development						D. NFESC, Port Hueneme		
	FY 1994			FY 1995			FY 1996			FY 1997		
Element of Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
Software							2		100	3		200
TOTAL									100			200

Narrative Justification:

NFESC plans to configure off-the-shelf software at end user workstation command-wide. This compatibility provides for a base level of standardized support and appropiate level of support for distinct categories of users to evolve naturally with hardware and software applications tailored to their needs. In addition to individual workstation software compatibility the NFESC plans to implement a Command-wide Information System supported by a client/Server based platform. This capability will provide a common basis for data analysis and supports both increased production and effective decision making.

000635

FY 1995 DBOF Capital Program Reconcilliation

FY 1995 DBOF Capital Purchases
Deferrals, Cancellations, Substitutions

The following describes the changes in the Capital Purchase Program from the FY 1995 President's Budget to the FY 1995 column of the FY 1996/1997 President's Budget. The categories are as follows:

a.) Category of purchase/project name, as noted in the FY 1995 President's Budget
b.) Disposition of project: cancellation, deferral and/or substitution
c.) Explanation for cancellation or deferral and substitution

000636

Naval Surface Warfare Center

FY 1995 DBOF CAPITAL PURCHASES
DEFERRALS, CANCELLATIONS, SUBSTITUTIONS

NAVY
($ IN 000)

1. R&D/NSWC - Indian Head Division
   a. Non-ADPE & Telec. Equip./Purchase Install Casting Bell Bldg. (743) — 1616
   b. Cancelled
   c. Project was an improved casting technology for large rocket units. Since the workload no longer supported this technology, it was cancelled.

2. R&D/NSWC - Crane Division
   a. Non-ADPE & Telec. Equip./CNC Portal-Type Mach Ctr. — 1722
   b. Deferred
   c. Deferred due to Congressional reductions to DBOF capital program

3. R&D/NSWC - Carderock Division
   a. Non-ADPE & Telec. Equip./Electron Microprobe — 750
   b. Cancelled and (ADPE) substitution
   c. Deferred to accommodate BRAC required relocation of the Materials Directorate from Annapolis to Carderock. In the interim a surplus Microprobe was procured.
   Wide Area Network Upgrade was substituted as there was an emergent requirement to upgrade and expand facilities from twisted pair to fiber optic network. — 150

4. R&D/NSWC - Carderock Division
   a. Non-ADPE & Telec. Equip./Magnetic Physical Modeling Fixture — 1080
   b. Reduced from 1080 to 500
   c. Reduced due to Congressional reduction to DBOF capital program

Attachment 1

0006637

5. R&D/NSWC - Carderock Division
   a. Non-ADPE & Telec. Equip./Enhanced Dynamometer Supply 600
   b. Cancelled/Substitution
   c. Project was dropped from CPP and was replaced with buy-out of FY 1994 Cavitation Chamber Project.

6. R&D/NSWC - Carderock Division
   a. Non-ADPE & Telec. Equip./SFDF High Pressure Air Sys Upgrade 300
   b. Deferred
   c. Deferred due to Congressional reduction to DBOF capital program

7. R&D/NSWC - Crane Division
   a. ADPE/Network Optical Data Storage 101
   b. Cost reduced to 95K
   c. Remains in budget as misc. ADPE

8. R&D/NSWC - Dahlgren Division
   a. ADPE/ADV Graphic Engine 125
   b. Nomenclature change (includes several projects)
   c. Remains in budget as Scientific Visualization & VR Lab Equipment 550

9. R&D/NSWC - Dahlgren Division
   a. ADPE/ADV WPNS Control Sys 235
   b. Cancelled
   c. Cancelled due to Congressional reduction

10. R&D/NSWC - Dahlgren Division
    a. ADPE/Display System Upgrade 150
    b. Nomenclature change (includes several projects)
    c. Remains in budget as Scientific Visualization & VR Lab Equipment 550

11. R&D/NSWC - Carderock Division
    a. ADPE/CAD II Systems-Directorate 90 170
    b. Reduced from 170 to 62
    c Reduced due to Congressional reduction to DBOF Capital Program

000638

12. R&D/NSWC - Crane Division — 451
    a. ADPE/Fiber Optic Network
    b. Cost in FY96/97 budget 450
    c. Change due to rounding

13. R&D/NSWC - Crane Division
    a. ADPE/Replace HW 8200 Tape Dr — 201
    b. Cancelled and (ADPE) substitution
    c. Cancelled due to going to open systems environment (Sun Computers) LAN Communication P-266, collateral equipment for the Electronic Countermeasures Systems Center, was substituted. Without this project the MILCON would not have an adequate electronic communications system. — 175

14. R&D/NSWC - Dahlgren Division
    a. ADPE/Network File Server — 200
    b. Cancelled
    c. Cancelled due to Congressional reduction

15. R&D/NSWC - Port Hueneme Division
    a. ADPE/Cals Desktop Publishing — 120
    b. Cancelled
    c. Cancelled due to BRAC. This base is being closed. -Naval Mine Warfare Engineering Activity requirement.

16. R&D/NSWC - Port Hueneme Division
    a. ADPE/Desktop Equipment Replacement — 400
    b. Cancelled
    c. Cancelled in favor of projects deemed to generate greater cost/productivity savings.

000639

17. R&D/NSWC - Port Hueneme Division
    a. ADPE/Engineering Workstations — 300
    b. Cancelled
    c. Cancelled due to Congressional reductions to DBOF capital program

18. R&D/NSWC - Port Hueneme Division
    a. ADPE/Optical Disk Storage - Cals — 120
    b. Increase to 257K
    c. FY94 requirement was moved to FY95 due to late ADPE authority

19. R&D/NSWC - Port Hueneme Division
    a. ADPE/Remote Computer Sys-CALS — 450
    b. Cancelled
    c. See item 16

20. R&D/NSWC - Port Hueneme Division
    a. ADPE/SHARE/43 Program GEN Sys — 370
    b. Cancelled
    c. See item 16

21. R&D/NSWC - Port Hueneme Division
    a. ADPE/VAX Cluster Replacement — 195
    b. Cancelled
    c. Cancelled due to BRAC. This base was closed. -Naval Mine Warfare Engineering Activity requirement

22. R&D/NSWC - Port Hueneme Division
    a. ADPE/VAX Upgrade — 375
    b. Cancelled
    c. See item 16

23. R&D/NSWC
    a. ADPE/NIMIP — 7908
    b. Reduced from 7908 to 2275
    c. Reduced due to Congressional reduction to DBOF capital program

000640

24. R&D/NSWC - Crane Division
    a. ADPE/EDMICS System — 251
    b. Deferred and (ADPE) substitution
    c. Delayed until FY97 to take advantage of emerging technology and improved pricing. Substitution, Fiber Optic System was moved from out years due to emergent requirement. — 120

25. R&D/NSWC - Crane Division
    a. ADPE/Tactical Advanced Computer — 101
    b. Deferred
    c. Delayed until FY96 to take advantage of emerging technology

26. R&D/NSWC - Dahlgren Division
    a. ADPE/IPE Workstation — 150
    b. Reduced from 150 to 105
    c. Reduced due to Congressional reduction to DBOF capital program

27. R&D/NSWC - Dahlgren Division
    a. ADPE/Network Upgrades — 80
    b. Change in nomenclature to ADPT General Facility Upgrade
    c. Remains in budget as ADPT General Facility Upgrade

28. R&D/NSWC - Dahlgren Division
    a. ADPE/SGI Power WS — 40
    b. Cancelled/Substituted
    c. Emergent requirement (Algorithm Dev. Fac: SGI ONYX Computer) supports a new approach to near real time operations with parallel processing and high speed visualization. Supports new strike warfare and upper tier anti-tactical ballistic missile simulation and analysis studies. — 128

29. R&D/NSWC - Dahlgren Division
    a. ADPE/Workstation Upgrade — 350
    b. Nomenclature change (includes several projects)
    c. Remains in budget as Scientific Visualization & VR Lab Equipment — 550

000641

30. R&D/NSWC - Carderock Division
    a. ADPE/CAD II Systems-Directorate 10
    b. Combined with the CAD II Systems - Directorate 90
    c. Remain in budget as CAD II Systems - Directorate 90

    65

31. R&D/NSWC - Crane Division
    a. ADPE/NC/CAD-CAM System
    b. Nomenclature problem - same project as CAM System
    c. Remains in budget as CAM System

    151

32. R&D/NSWC - Dahlgren Division
    a. ADPE/Contracts Filing System
    b. Cancelled
    c. Cancelled due to Congressional reduction to DBOF capital program

    295

33. R&D/NSWC - Port Hueneme Division
    a. ADPE/CAD/CAM
    b. Cancelled
    c. Cancelled due to BRAC. This base was closed. -Naval Mine Warfare Engineering Activity requirement

    150

34. R&D/NSWC - Port Hueneme Division
    a. ADPE/SHARE/43 CPU Upgrade
    b. Cancelled
    c. See item 16

    130

35. R&D/NSWC - Dahlgren Division
    a. ADPE/Array Processors
    b. Deferred/ADPE substitution
    c. Emergent requirement (Algorithm Dev. Fac: SGI ONYX Computer) supports a new approach to near real time operation with parallel processing and high speed visualization. Supports new strike warfare and upper tier anti-tactical ballistic missile simulation and analysis studies.

    168

    128

000642

36. R&D/NSWC - Dahlgren Division
    a. ADPE/IRIS RD WS — 210
    b. Cancelled
    c. Cancelled due to Congressional reduction to DBOF capital projects

37. R&D/NSWC - Dahlgren Division
    a. ADPE/Upgrade VAX 6320/6540 — 95
    b. Change in Nomenclature to Software QA Fac Upgrade
    c. Remains in budget as Software QA Fac Upgrade

38. R&D/NSWC - Carderock Division
    a. ADPE/CAD II Systems - Directorate 20 — 225
    b. Cancelled
    c. Cancelled due to Congressional reductions to DBOF capital program

39. R&D/NSWC - Port Hueneme Division
    a. ADPE/Remote System - Cals — 350
    b. Cancelled
    c. See item 16

40. R&D/NSWC - Port Hueneme Division
    a. ADPE/SWEF Test Pool Equipment — 280
    b. Cancelled
    c. See item 16

41. R&D/NSWC - Port Hueneme Division
    a. Telecomm/Graphic Workstation Network — 300
    b. Cancelled
    c. See item 16

42. R&D/NSWC - Dahlgren Division
    a. Telecomm/Data Network — 475
    b. Cancelled
    c. Higher priorities after Congressional budget cuts

000643

43. R&D/NSWC - Dahlgren Division
    a. Off the Shelf Software/LAN Protocol Software — 115
    b. Increase to 120
    c. Project cost increased

44. R&D/NSWC - Dahlgren Division
    a. Off the Shelf Software/Links Software — 160
    b. Cancelled
    c. Higher priorities after Congressional budget cuts

45. R&D/NSWC
    a. Software Development/NIMIP — 11240
    b. Reduced to 4024
    c. Reduced due to Congressional reduction to DBOF capital program

46. R&D/NSWC - Dahlgren
    a. Non ADP Equipment/SPY -1 RF Environmental Simulator — 360
    b. Appears as a line item, due threshhold changes
    c. Remains in budget

47. R&D/NSWC - Dahlgren
    a. ADPE/Links Hardware — 250
    b. Reduced to 100
    c. OSD budget reduction

000644

FY 1995 DBOF Capital Program Reconciliation

FY 1995 DBOF Capital Purchases
Funding Disposition of Deferrals, Cancellations, Substitutions

The following describes the changes in the Capital Purchase Program from the FY 1995 President's Budget to the FY 1995 column of the FY 1996/1997 President's Budget. The categories are as follows:

a.) Category of purchase/project name, as noted in the FY 1995 President's Budget
b.) Disposition of project: cancellation, deferral and/or substitution
c.) Disposition of related funding

000645

FY 1995 DBOF CAPITAL PURCHASES
FUNDING DISPOSITION OF DEFERRALS, CANCELLATIONS, SUBSTITUTIONS

NAVY
($ IN 000)

1. R&D/ NSWC - Indian Head Division
   a. Non-ADPE & Telec. Equip./Purchase Install Casting Bell Bldg. (743) 1616
   b. Cancelled
   c. N/A - OA transferred to other NSWC activities

2. R&D/NSWC - Crane Division
   a. Non-ADPE & Telec. Equip./CNC Portal-Type Mach Ctr. 1722
   b. Deferred
   c. N/A - Obligational authority and TOA removed by Congressional action

3. R&D/NSWC - Carderock Division
   a. Non-ADPE & Telec. Equip./Electron Microprobe 750
      ADPE/Wide Area Network Upgrade 150
   b. Cancelled/Substitution
   c. Substitution

4. R&D/NSWC - Carderock Division
   a. Non-ADPE & Telec. Equip./Magnetic Physical Modeling Fixture 1080
   b. Reduced from 1080 to 500
   c. N/A - Obligational authority and TOA removed by Congressional action

5. R&D/NSWC - Carderock Division
   a. Non-ADPE & Telec. Equip./Enhanced Dynamometer Supply 600
   b. Cancelled/substitution
   c. Cancelled. FY 1994 Cavitation Chamber Project substituted

Attachment 2

000646

6. R&D/NSWC - Carderock Division
   a. Non-ADPE & Telec. Equip./SFDF High Pressure Air System Upgrade 300
   b. Deferred
   c. N/A - Obligational authority and TOA removed by Congressional action

7. R&D/NSWC - Crane Division
   a. ADPE/Network Optical Data Storage 101
   b. Cost was reduced to 95K
   c. Remains in budget under misc. ADPE

8. R&D/NSWC - Dahlgren Division
   a. ADPE/ADV Graphic Engine 125
   b. Nomenclature change (includes several projects)
   c. Remains in budget as Scientific Visualization & VR Lab Equipment 550

9. R&D/NSWC - Dahlgren Division
   a. ADPE/ADV WPNS Control Sys 235
   b. Cancelled
   c. N/A - OA was removed by OSD action

10. R&D/NSWC - Dahlgren Division
    a. ADPE/Display System Upgrade 150
    b. Nomenclature change (includes several projects) 550
    c. Remains in budget as Scientific Visualization & VR Lab Equipment

11. R&D/NSWC - Carderock Division
    a. ADPE/CAD II Systems-Directorate 90 170
    b. Reduced from 170 to 62
    c N/A - Obligational authority and TOA removed by Congressional action

12. R&D/NSWC - Crane Division
    a. ADPE/Fiber Optic Network 451
    b. Cancelled
    c. N/A - Obligational authority and TOA removed by Congressional action

000647

13. R&D/NSWC - Crane Division
    a. ADPE/Replace HW 8200 Tape Dr — 201
       ADPE/LAN Communication P-266 — 175
    b. Cancelled/Substitution
    c. Substitution/remaining OA transferred to NUWC

14. R&D/NSWC - Dahlgren Division
    a. ADPE/Network File Server — 200
    b. Cancelled
    c. N/A - OA removed by OSD action

15. R&D/NSWC - Port Hueneme Division
    a. ADPE/Cals Desktop Publishing — 120
    b. Cancelled
    c. OA transferred to NUWC

16. R&D/NSWC - Port Hueneme Division
    a. ADPE/Desktop Equipment Replacement — 400
    b. Cancelled
    c. OA transferred to NUWC

17. R&D/NSWC - Port Hueneme Division
    a. ADPE/Engineering Workstations — 300
    b. Cancelled
    c. N/A - Obligational authority and TOA removed by Congressional action

18. R&D/NSWC - Port Hueneme Division
    a. ADPE/Optical Disk Storage - Cals — 120
    b. Price increase
    c. N/A - No disbursements

19. R&D/NSWC - Port Hueneme Division
    a. ADPE/Remote Computer Sys-CALS — 450
    b. Cancelled
    c. OA transferred to NUWC

00648

20. R&D/NSWC - Port Hueneme Division
    a. ADPE/SHARE/43 Program GEN Sys — 370
    b. Cancelled
    c. OA transferred to NUWC

21. R&D/NSWC - Port Hueneme Division
    a. ADPE/VAX Cluster Replacement — 195
    b. Cancelled
    c. OA transferred to NUWC

22. R&D/NSWC - Port Hueneme Division
    a. ADPE/VAX Upgrade — 375
    b. Cancelled
    c. OA transferred to NUWC

23. R&D/NSWC
    a. ADPE/NIMIP — 7908
    b. Reduced from 7908 to 2275
    c. N/A - Obligational authority and TOA removed by Congressional action

24. R&D/NSWC - Crane Division
    a. ADPE/EDMICS System — 251
       ADPE/Fiber Optic System — 120
    b. Deferred/substitution
    c. Substitution/remaining OA transferred to NUWC

25. R&D/NSWC - Crane Division
    a. ADPE/Tactical Advanced Computer — 101
    b. Deferred
    c. OA transferred to NUWC

26. R&D/NSWC - Dahlgren Division
    a. ADPE/IPE Workstation — 150
    b. Reduced from 150 to 105
    c. N/A - Obligational authority and TOA removed by Congressional action

000649

27. R&D/NSWC - Dahlgren Division
    a. ADPE/Network Upgrades — 80
    b. Change in nomenclature
    c. Remains in budget

28. R&D/NSWC - Dahlgren Division
    a. ADPE/SGI Power WS — 40
       Algorithm Dev. Fac: SGI ONYX Computer — 128
    b. Cancelled
    c. Substituted

29. R&D/NSWC - Dahlgren Division
    a. ADPE/Workstation Upgrade — 350
    b. Nomenclature change (includes several projects)
    c. Remains in budget as Scientific Visualization & VR Lab Equipment — 550

30. R&D/NSWC - Carderock Division
    a. ADPE/CAD II Systems-Directorate 10 — 65
    b. Combined with the CAD 11 Systems - Directorate 90
    c. Remains in budget

31. R&D/NSWC - Crane Division
    a. ADPE/NC/CAD-CAM System — 151
    b. Nomenclature problem - same project as CAM System
    c. Remains in budget

32. R&D/NSWC - Dahlgren Division
    a. ADPE/Contracts Filing System — 295
    b. Cancelled
    c. N/A - Obligational authority and TOA removed by Congressional action

33. R&D/NSWC - Port Hueneme Division
    a. ADPE/CAD/CAM — 150
    b. Cancelled
    c. OA transferred to NUWC

000650

34. R&D/NSWC - Port Hueneme Division
    a. ADPE/SHARE/43 CPU Upgrade 130
    b. Cancelled
    c. OA transferred to NUWC

35. R&D/NSWC - Dahlgren Division
    a. ADPE/Array Processors 168
       ADPE/Algorithm Dev. Fac: SGI ONYX Computer 128
    b. Cancelled
    c. Substituted

36. R&D/NSWC - Dahlgren Division
    a. ADPE/IRIS RD WS 210
    b. Cancelled
    c. N/A - Obligational authority and TOA removed by Congressional action

37. R&D/NSWC - Dahlgren Division
    a. ADPE/Upgrade VAX 6320/6540 95
    b. Change in Nomenclature to Software OA Fac Upgrade
    c. Remain in budget

38. R&D/NSWC - Carderock Division
    a. ADPE/CAD II Systems - Directorate 20 225
    b. Cancelled
    c. N/A - Obligational authority and TOA removed by Congressional action

39. R&D/NSWC - Port Hueneme Division
    a. ADPE/Remote System - Cals 350
    b. Cancelled
    c. OA transferred to NUWC

40. R&D/NSWC - Port Hueneme Division
    a. ADPE/SWEF Test Pool Equipment 280
    b. Cancelled
    c. OA transferred to NUWC

000951

41. R&D/NSWC - Port Hueneme Division
    a. Telecomm/Graphic Workstation Network 300
    b. Cancelled
    c. OA transferred to NUWC

42. R&D/NSWC - Dahlgren Division
    a. Telecomm/Data Network 475
    b. Cancelled
    c. N/A - was removed by OSD action

43. R&D/NSWC - Dahlgren Division
    a. Off the Shelf Software/LAN Protocol Software 115
    b. Increase to 120
    c. N/A - no disbursement

44. R&D/NSWC - Dahlgren Division
    a. Off the Shelf Software/Links Software 160
    b. Cancelled
    c. N/A - was removed by OSD action

45. R&D/NSWC
    a. Software Development/NIMIP 11240
    b. Reduced to 4024
    c. N/A - Obligational authority and TOA removed by Congressional action

46. R&D/NSWC
    a. Non ADP Equipment/SPY-1 RF Environmental Simulator 260
    b. Appears as a new line item, due to threshold changes
    c. Remains in budget

47. R&D/NSWC
    a. ADPE/Links Hardware 250
    b. Reduced to 100
    c. N/A - OA was removed by OSD action

259000

FY 1995 DBOF Capital Program Reconcilliation

FY 1995 DBOF Capital Purchases
Deferrals, Cancellations, Substitutions

The following describes the changes in the Capital Purchase Program from the FY 1995 President's Budget to the FY 1995 column of the FY 1996/1997 President's Budget. The categories are as follows:

a.) Category of purchase/project name, as noted in the FY 1995 President's Budget
b.) Disposition of project: cancellation, deferral and/or substitution
c.) Explanation for cancellation or deferral and substitution

000653

AIR WARFARE CENTERS

FY 1995 DBOF CAPITAL PURCHASES

DEFERRALS, CANCELLATIONS, SUBSTITUTIONS

NAVY

($ In 000)

1. Research and Development - Naval Air Warfare Center (NAWC) — $1,728
   a. Non-ADPE/CASS (Consolidated Automated Support System) Station Equipment
   b. Deferral and substitution
   c. Awaiting implementation guidance. Phase I development has not been completed by the developing Activity. These dollars were transferred to:

WEPTAC II Production System	$600
Bi-Static Chamber Equipment	$879
Congressional reduction to DBOF capital program	$249

2. Research and Development - NAWC — $600
   a. Non-ADPE/WEPTAC II (Weapons & Tactics Analysis Center) Production System
   b. Substitution
   c. An additional $600K is required to complete FY94 modules. Completion was delayed due to procurement increases for interactive simulation hardware.

3. Research and Development - NAWC — $879
   a. Non-ADPE/Bi-Static Chamber Equipment
   b. Substitution
   c. Additional specialized equipment needed to position targets in the chamber and to complete installation of CPP components acquired during FY94.

000654

AIR WARFARE CENTERS

FY 1995 DBOF CAPITAL PURCHASES

DEFERRALS, CANCELLATIONS, SUBSTITUTIONS

NAVY

($ In 000)

4. Research and Development - NAWC — $1,750
   a. Non-ADPE/Advanced Multiple Emitter System
   b. Cancellation and Substitution
   c. The Pt. Mugu system acquired with FY93 CPP funds will be sufficient to meet the needs of both Pt. Mugu and China Lake. Funds were reprogrammed to
      High Off-Boresight Angle Table — $920
      Cancelled due to Congressional reduction to DBOF capital program. — $830

5. Research and Development - NAWC — $920
   a. Non-ADPE/High Off-Boresight Angle Table
   b. Substitution
   c. This line item is to meet the advanced capability requirement to test leading-edge guidance systems.

6. Research and Development - NAWC — $499
   a. ADPE/Procurement Workstation System Upgrade
   b. Cancellation
   c. Congressional reduction to DBOF capital program

7. Research and Development - NAWC — $469
   a. ADPE/Distributed Computer Info Processing
   b. Cancellation
   c. Congressional reduction to DBOF capital program

000655

AIR WARFARE CENTERS

FY 1995 DBOF CAPITAL PURCHASES
DEFERRALS, CANCELLATIONS, SUBSTITUTIONS

NAVY
($ in 000)

8. Research and Development - NAWC — **$100**
   a. ADPE/Cable to New Construction
   b. Cancellation and substitution
   c. The Cable to New Construction was completed during FY94. Therefore, $75K of the Cable to New Construction line item was transferred to a line item in the less than $100K category. The remaining $25K was cancelled due to Congressional reduction to the DBOF capital program.

9. Research and Development - NAWC — **$2,800**
   a. ADPE/Engineering Data Management Information and Control System (EDMICS)
   b. Deferral
   c. Some of the weapons systems EDMICS is to support are not yet in place. Therefore, the EDMICS program is being implemented in a phased approach. These dollars were not reprogrammed in FY95 due to the Congressional reduction to the DBOF capital program.

10. Research and Development - NAWC — **$2,500**
    a. ADPE/Tandem TXP Computer Upgrade
    b. Cancellation and substitution
    c. The upgrade to the Tandem Computer was acquired under BRAC. These dollars were transferred to:

Image System	$1,126
Common Property System	$604
Software Engineering Environment	$200
PM MARS Expansion Warehouse	$190
Replacement Items for C-LAN	$365
Technical Information Support System	$3
Congressional reduction to DBOF capital program	$12

000656

FY 1995 DBOF CAPITAL PURCHASES
DEFERRALS, CANCELLATIONS, SUBSTITUTIONS

NAVY
($ in 000)

11. **Research and Development - NAWC** — **$1,126**
    a. **ADPE/Image System**
    b. **Substitution**
    c. The Image System is in response to a NAWCWD consolidated need to reduce dependence on a paper-based system and to comply with the Paper Reduction Act of 1986.

12. Research and Development - NAWC — $604
    a. ADPE/Common Property System
    b. Substitution
    c. The line item responds to the NAWC requirement to implement a common plant property system.

13. Research and Development - NAWC — $200
    a. ADPE/Software Engineering Environment
    b. Substitution
    c. This line item is required for computer upgrades to maintain the integrity of the computer system which supports the Embedded Computer Facility.

14. Research and Development - NAWC — $190
    a. ADPE/PM MARS (Pt. Mugu Multi-User Archival & Retrieval System) Expansion Warehouse
    b. Substitution
    c. This line item is in response to the critical need for a common NAWC archival/retrieval system for payroll packages and fund documents. The most cost-effective way to do this was to expand the existing China Lake MARS system to include Pt. Mugu.

000657

FY 1995 DBOF CAPITAL PURCHASES
DEFERRALS, CANCELLATIONS, SUBSTITUTIONS

NAVY
($ in 000)

15. Research and Development - NAWC
    a. ADPE/Replacement Items for C-LAN (Communication Local Area Network) $365
    b. Substitution
    c. Technology upgrade to the C-LAN is required to maintain critical communication compatibility between Pt. Mugu and China Lake.

16. Research and Development - NAWC
    a. ADPE/CALS CADII (Computer Aided Logistics System & Computer Aided Design II) $1,410
    b. Deferral and Substitution
    c. The CALS/CADII item was deferred because the NAVAIR Computer Aided Design Contract had not been awarded at the DON budget preparation/submit time.
    The CALS/CADII dollars were transferred to:

Simulation Network Debrief System	$700
Technical Information Support System	$710

17. Research and Development - NAWC
    a. ADPE/Simulation Network Debrief System $700
    b. Substitution
    c. This is required to establish a NAWCWD link to participate in the nation-wide distributed information system architecture.

18. Research and Development - NAWC
    a. ADPE/Technical Information Support System $713
    b. Substitution From: CALS/CADII $710
    From: Tandem Computer line item $3
    c. The current Technical Information Department computer system is obsolete. This technology upgrade will maintain the integrity of the TID computer system.

000638

FY 1995 DBOF CAPITAL PURCHASES
DEFERRALS, CANCELLATIONS, SUBSTITUTIONS

NAVY
($ In 000)

19. Research and Development - NAWC — $990
    a. ADPE/CALS Module Integrated Electronic Technical Manual/Pubs
    b. Deferral and Substitution
    c. The CALS Module for technical manual/pubs supports the deferred CALS/CADII line item. By necessity this line item is deferred and will be implemented in a phased approach. These dollars have been reprogrammed to:

ATR Real-Time Technology Development	$332
Software Workstation Upgrade	$170
Optical Disk System	$130
NAWC DBOF System	$131
Secure Network	$116
NAWC Corporate Budget System	$111

20. Research and Development - NAWC — $332
    a. ADPE/ATR (Automatic Target Recognition) Real-Time Technology Development
    b. Substitution
    c. This system is required for participation in the Tri-Service common Automated Target Recognition project.

21. Research and Development - NAWC — $170
    a. ADPE/Software Workstation Upgrade
    b. Substitution
    c. Obsolete computing platforms need to be upgraded and replaced.

000659

FY 1995 DBOF CAPITAL PURCHASES
DEFERRALS, CANCELLATIONS, SUBSTITUTIONS

NAVY
($ In 000)

22. Research and Development - NAWC — $130
    a. ADPE/Optical Disk System
    b. Substitution
    c. This is a requirement brought about by the downsizing of human resources. Upgrading the current manual filing/storage and retrieval system to an optical system is a cost-effective solution.

23. Research and Development - NAWC — $131
    a. ADPE/NAWC DBOF System
    b. Substitution
    c. This line item meets a replacement requirement. Phase I is for FY95 to replace obsolete computers which are 6-8 years old. These obsolete machines are unable to support the increased workload. This system performs Defense Business Operating Fund (DBOF) financial and management services.

24. Research and Development - NAWC — $116
    a. ADPE/Secure Network
    b. Substitution
    c. Within a secure environment, a network for the exchange of electronic documents was required to replace the current paper-intensive system.

25. Research and Development - NAWC — $111
    a. ADPE/NAWC Corporate Budget System
    b. Substitution
    c. Increased external reporting necessitated upgrading existing computer technology.

099000

FY 1995 DBOF CAPITAL PURCHASES
DEFERRALS, CANCELLATIONS, SUBSTITUTIONS

NAVY
($ In 000)

26. Research and Development - NAWC	
a. ADPE/Software Upgrades	$125
b. Cancellation	
c. Congressional reduction to DBOF capital program	
27. Research and Development - NAWC	
a. ADPE/Xerox 4050 Printer	$101
b. Cancellation	
c. Congressional reduction to DBOF capital program	
28. Research and Development - NAWC	
a. ADPE/Productivity Software (CASE, CAD)	$100
b. Cancellation	
c. Congressional reduction to DBOF capital program	

000661

FY 1995 DBOF[illegible] AL PURCHASES
DEFERRALS, CANCELLATIONS, SUBSTITUTIONS

NAVY
($ IN 000)

29. Research and Development - Naval Air Warfare Center (NAWC)
    a. Non-ADPE/Teradyne Zehntel 8500 Test System — $ 710
    b. Cancellation and Non-ADPE and ADPE Substitutions
    c. This line item was a continuation of the FY94 project. The equipment purchased in FY94 satisfied the requirements.

Substitutions - Computer Aided Graphics Workstations	$ 559
COTS Facility H/W ASQ-212	$ 140
Non-ADPE <$500K	$ 11

30. Research and Development - NAWC
    a. Non-ADPE/Motion Simulation Table — $ 700
    b. Cancellation and Non-ADPE and ADPE Substitutions
    c. After careful review of existing areas, it was determined that this item would no longer be required due to the transition of Warminster to Patuxent River.

Substitutions - Switch Upgrade	$ 110
Maintenance Control System	$ 120
Blue Hose Installation for NAS	$ 264
DCCF Upgrade	$ 180
Non-ADPE <$500K	$ 26

31. Research and Development - NAWC
    a. Non-ADPE/Anechoic Chamber Bldg 120 — $ 500
    b. Cancellation and Non-ADPE and ADPE Substitution
    c. This line item would have provided refurbishment to the Anechoic Chamber currently located at Warminster. However, after reviewing the situation it was determined that the chamber would not be moveable.

Substitutions - UH-1N Avionics Tracking Suite	$ 260
Imbedded Pilot Proficiency	$ 242
Non-ADPE <$500K	$ (2)

0006962

FY 1995 DBOF C AL PURCHASES
DEFERRALS, CANCELLATIONS, SUBSTITUTIONS

NAVY
($ IN 000)

32. Research and Development - NAWC		
a. Non-ADPE/Maritime Multimission Interoperability Center		$1,300
b. Cancellation and Non-ADPE Substitution		
c. A review was conducted between MRTFB and DBOF and this item was identified to be an MRTFB asset. Therefore, it will be supported under the RDT&E Program Element 0605864.		
Substitution - Non-ADPE <$500K	$1,300	
33. Research and Development - NAWC		
a. Non-ADPE/VXIBUS System (IAWS)		$1,300
b. Cancellation and Non-ADPE and ADPE Substitutions		
c. A review was conducted between MRTFB and DBOF and this item was identified to be an MRTFB asset. Therefore, it will be supported under the RDT&E Program Element 0605864.		
Substitution - COTS Simulation System	$ 905	
Non-ADPE <$500K	$ 395	
34. Research and Development - NAWC		
a. ADPE/Computer Aided Graphics Workstations		$ 559
b. Substitution for Teradyne Zehntel 8500 Test System		
c. This requirement is necessary for a smooth transition of the capabilites of the aircraft modifications group at Warminster with the group currently located at Patuxent River.		

000663

FY 1995 DBOF C AL PURCHASES
DEFERRALS, CANCELLATIONS, SUBSTITUTIONS

NAVY
($ IN 000)

35. Research and Development - NAWC
    a. ADPE/Data Processing Systems — $ 971
    b. Cancellation and Non-ADPE and ADPE Substitutions
    c. As a result of the ongoing consolidation efforts between Warminster and Patuxent River, this line item was determined to be a lower priority and was replaced with other equipment more urgently needed.

Substitutions -	UNIX Corporate Server Environment Expansion	$ 291
	ADP Equipment Upgrades	$ 242
	Classified Data Processing	$ 100
	64-Bit Multi-Processing	$ 100
	Resources Automated Mgmt System	$ 210
	Non-ADPE <$500K	$ 28

36. Research and Development - NAWC
    a. ADPE/DFS Aerodynamic System — $ 810
    b. Cancellation and Non-ADPE and ADPE Substitutions
    c. As a result of the ongoing consolidation efforts between Warminster and Patuxent River, this line item was determined to be a lower priority and was replaced with other equipment more urgently needed.

Substitutions -	Optical Disk archiving System	$ 401
	TAC 4 and AFMSS Mission Planning System	$ 350
	Non-ADPE <$500K	$ 59

37. Research and Development - NAWC
    a. ADPE/Centrifuge Control System — $ 450
    b. Cancellation and Non-ADPE and ADPE Substitutions
    c. As a result of the ongoing consolidation efforts between Warminster and Patuxent River, this line item was determined to be a lower priority and was replaced with other equipment more urgently needed.

Substitutions -	Confocal Microscopy System	$ 153
	Helicopter cockpit Training System	$ 128
	X-Ray Diffraction Upgrade	$ 141
	Non-ADPE <$500K	$ 28

000664

FY 1995 DBOF C AL PURCHASES
DEFERRALS, CANCELLATIONS, SUBSTITUTIONS

NAVY
($ IN 000)

38. Research and Development - NAWC
    a. ADPE/Owl Laser System Enhancements — $ 410
    b. Cancellation and Non-ADPE and ADPE Substitutions
    c. As a result of the ongoing consolidation efforts between Warminster and Patuxent River, this line item was determined to be a lower priority and was replaced with other equipment more urgently needed.
       Substitutions - Aircrew Prototyping System — $ 390
       Non-ADPE <$500K — $ 20

39. Research and Development - NAWC
    a. ADPE/Core Computer Final Configuration — $ 550
    b. Cancellation and Non-ADPE and ADPE Substitutions
    c. During an evaluation of the existing areas and the stand-up of a Competency Aligned Organization in FY95, this equipment was determined to be a lower priority and was replaced with other equipment more urgently needed.
       Substitutions - Reconfiguration Crewstation Upgrade — $ 563
       Non-ADPE <$500K — $ (13)

40. Research and Development - NAWC
    a. ADPE/COTS Simulation System — $ 905
    b. Substitution for VXIBUS System (IAWS)
    c. This equipment will aid in the transportation of VP simulation information. It will support tactical mission programs and system test development programs.

41. Research and Development - NAWC
    a. ADPE/Reconfiguration Crewstation Upgrade — $ 563
    b. Substitution for Core Computer Final Configuration
    c. This equipment will enable NAWCAD to met the needs of sponsors and to maintain its leadership in advanced automation technology.

000665

FY 1995 DBOF (AL PURCHASES
DEFERRALS, CANCELLA TIONS, SUBSTITUTIONS

NAVY
($ IN 000)

42. Research and Development - NAWC — $ 401
    a. ADPE/Optical Disk Archiving System
    b. Substitution for DFS Aerodynamic System
    c. Our mission and support to our current users is not being met in a timely manner with the current equipment. Demands on optical disk storage and timely system performance have nessecitated the need for this item.

43. Research and Development - NAWC — $ 390
    a. ADPE/Aircrew Prototyping Station
    b. Substitution for Owl Laser System Enhancements
    c. This equipment will enable NAWC to perform its work assignments in the development of rapid design and evaluation of flight crew avionics.

44. Research and Development - NAWC — $ 350
    a. ADPE/TAC 4 and AFMSS Mission Planning System
    b. Substitution for DFS Aerodynamic System
    c. This equipment will enable NAWCAD to fulfill the requirements for shipboard and shore-based computing.

45. Research and Development - NAWC — $ 291
    a. ADPE/UNIX Corporate Server Environment Expansion
    b. Substitution for Data Processing Systems
    c. This equipment will enable current servers to meet project deadlines.

46. Research and Development - NAWC — $ 264
    a. ADPE/Blue Hose Installation for NAS
    b. Substitution for Motion Simulation Table
    c. Several functions under the Naval Air Station are interrelated; a networking atmosphere will give the NAS the flexibility to accomodate response time and produce accurate results. With the downsizing workforce, efficiency and productivity must be improved. Local area networking will be the most significant factor in the effort to perform more work with less personnel.

999000

FY 1995 DBOF C AL PURCHASES
DEFERRALS, CANCELLATIONS, SUBSTITUTIONS

NAVY
($ IN 000)

47. Research and Development - NAWC — $ 260
    a. ADPE/UH-1N Avionics Tracking Suite
    b. Substitution for Anechoic Chamber Bldg 120
    c. This equipment will provide reliable avionics simulation.

48. Research and Development - NAWC — $ 242
    a. ADPE/ADP Equipment Upgrades
    b. Substitution for Data Processing Systems
    c. Many of the Naval Air Station functions are still manually maintained. This equipment will allow current operations to become automated and will improve the efficiency of data retrieval and storage.

49. Research and Development - NAWC — $ 242
    a. ADPE/Imbedded Pilot Proficiency
    b. Substitution for Anechoic Chamber Bldg. 120
    c. This equipment will facilitate the collection and analysis of data to improve the pilot proficiency system.

50. Research and Development - NAWC — $ 180
    a. ADPE/DCCF Upgrade
    b. Substitution for Motion Simulation Table
    c. This equipment has been determined a higher priority because of the need to provide reliable, timely, accurate, and valuable corporate information system resources to users. With the increased workload the needs of our users is being severely impacted.

51. Research and Development - NAWC — $ 153
    a. ADPE/Confocal Microscopy System
    b. Substitution for Centrifuge Control System
    c. This equipment will make valuable information obtainable. Data storage, image enhancement, and information retrieval will become available for microscopy. This will improve the transfer of information to sponsors and the fleet.

000697

FY 1995 DBOF (AL PURCHASES
DEFERRALS, CANCELLATIONS, SUBSTITUTIONS

NAVY
($ IN 000)

52. Research and Development - NAWC
    a. ADPE/X-Ray Diffraction Upgrade $ 141
    b. Substitution for Centrifuge Control System
    c. This equipment will enable NAWCAD to maintain a credible X-Ray Diffraction Facility.

53. Research and Development - NAWC
    a. ADPE/COTS Facility H/W ASQ-212 $ 140
    b. Substitution for Teradyne Zehntel 8500 Test System
    c. This equipment will provide software production capability for VP during the transition of theVP facilities from Warminster to Patuxent River.

54. Research and Development - NAWC
    a. ADPE/Helicopter Cockpit Training System $ 128
    b. Substitution for Centrifuge Control System
    c. This equipment will allow the Vertical Flight sponsors to view functional requirements in the early stages of conceptual design, minimizing the impact of implementations which do not exactly meet the sponsors needs. This equipment will provide Vertical flight Systems the capability to prototype helicopter cockpit displays and layouts using Virtual Reality concepts.

55. Research and Development - NAWC
    a. ADPE/Maintenance Control System $ 120
    b. Substitution for Motion Simulation Table
    c. This equipment will provide adequate support to the AN/AYK-10 General Purpose Digital Computer that will support the current Maintenance Panel.

56. Research and Development - NAWC
    a. ADPE/Classified Data Processing $ 100
    b. Substitution for Data Processing Systems
    c. This equipment will support the movement of engineers from Warminster to Patuxent River by providing classified flight test and engine data required without delaying test programs and delivery schedules for aircraft.

000668

FY 1995 DBOF C AL PURCHASES
DEFERRALS, CANCELLATIONS, SUBSTITUTIONS

NAVY
($ IN 000)

57. Research and Development - NAWC
    a. ADPE/64-Bit Multi-Processing — $ 100
    b. Substitution for Data Processing Systems
    c. This equipment will provide enginners with reduced flight test data in a timely manner, thereby preventing the delay of test programs and operational evaluation periods for base aircraft.

58. Research and Development - NAWC
    a. ADPE/Resources Automated Mgmt System (RAMS) — $ 210
    b. Substitution for Data Processing Systems
    c. The RAMS will manage resource data for various sites as well as provide support for mission activities. It will support the informational needs of resource managers.

59. Research and Development - NAWC
    a. ADPE/Switch Upgrade — $ 110
    b. Substitution for Motion Simulation Table
    c. The consolidation of St. Inigoes and Patuxent River in FY95 has made this item a requirement for NAWC.

000669

FY 1995 DBOF Capital Program Reconcilliation

FY 1995 DBOF Capital Purchases
Funding Disposition of Deferrals, Cancellations, Substitutions

The following describes the changes in the Capital Purchase Program from the FY 1995 President's Budget to the FY 1995 column of the FY 1996/1997 President's Budget. The categories are as follows:

a.) Category of purchase/project name, as noted in the FY 1995 President's Budget
b.) Disposition of project: cancellation, deferral and/or substitution
c.) Disposition of related funding

029000

FY 1995 DBOF CAPITAL PURCHASES
FUNDING DISPOSITION OF DEFERRALS, CANCELLATIONS, SUBSTITUTIONS
NAVY
($ In 000)

1. Research and Development - Naval Air Warfare Center (NAWC)
   a. Non-ADPE/CASS (Consolidated Automated Support System) Station Equipment — $1,728
   b. Deferral and Substitution
   c. Funding for this deferred item was transferred to
      - WEPTAC II Production System — $600
      - Bi-Static Chamber Equipment — $879
      - N/A--Obligational authority and TOA removed by Congressional action — $249

   Due to the substitution, DBOF cash was not affected.

2. Research and Development - NAWC
   a. Non-ADPE/WEPTAC II (Weapons & Tactics Analysis Center) Production System — $600
   b. Substitution
   c. Funding for this item was transferred from the CASS Station Equipment line item.
   Due to the substitution, DBOF cash was not affected.

3. Research and Development - NAWC
   a. Non-ADPE/Bi-Static Chamber Equipment — $879
   b. Substitution
   c. Funding to meet this substitution was transferred from CASS Station Equipment line item.
   Due to the substitution, DBOF cash was not affected.

4. Research and Development - NAWC
   a. Non-ADPE/Advanced Multiple Emitter System — $1,750
   b. Cancellation and Substitution
   c. Funds were reprogrammed to:
      - High Off-Boresight Angle Table — $920
      - N/A--Obligational authority and TOA removed by Congressional action — $830

   Due to the substitution, DBOF cash was not affected.

000673

FY 1995 DBOF CAPITAL PURCHASES
FUNDING DISPOSITION OF DEFERRALS, CANCELLATIONS, SUBSTITUTIONS
NAVY
($ In 000)

5. Research and Development - NAWC
   a. Non-ADPE/High Off-Boresight Angle Table — $920
   b. Substitution
   c. Funding for this line item was transferred from Advanced Multiple Emitter System. Due to the substitution, DBOF cash was not affected.

6. Research and Development - NAWC
   a. ADPE/Procurement Workstation System Upgrade — $499
   b. Cancellation
   c. N/A--Obligational authority and TOA removed by Congressional action

7. Research and Development - NAWC
   a. ADPE/Distributed Computer Info Processing — $469
   b. Cancellation
   c. N/A--Obligational authority and TOA removed by Congressional action

8. Research and Development - NAWC
   a. ADPE/Cable to New Construction — $100
   b. Cancellation and substitution
   c. Of this line item, $75K was transferred to the less than $100K category. — $75
      N/A--Obligational authority and TOA removed by Congressional action — $25
      Due to the substitution, DBOF cash was not affected.

9. Research and Development - NAWC
   a. ADPE/Engineering Data Management Information and Control System (EDMICS) — $2,800
   b. Deferral
   c. Due to the Congressional reduction to DBOF capital program, these dollars were not reprogrammed. N/A--Obligational authority and TOA removed by Congressional action.

229000

FY 1995 DBOF CAPITAL PURCHASES
FUNDING DISPOSITION OF DEFERRALS, CANCELLATIONS, SUBSTITUTIONS
NAVY
($ in 000)

10. Research and Development - NAWC — $2,500
    a. ADPE/Tandem TXP Computer Upgrade
    b. Cancellation and substitution
    c. The upgrade to the Tandem Computer was acquired with BRAC funding.
       Funding was reprogrammed to:

Image System	$1,126
Common Property System	$604
Software Engineering Environment	$200
PM MARS Expansion Warehouse	$190
Replacement Items for C-LAN	$365
Technical Information Support System	$3
N/A--Obligational authority and TOA removed by Congressional action	$12

       Due to these substitutions, DBOF cash was not affected.

11. Research and Development - NAWC — $1,126
    a. ADPE/Image System
    b. Substitution
    c. Funding for the Image System is transferred from the Tandem Computer line item.
       Due to the substitution, DBOF cash was not affected.

12. Research and Development - NAWC — $604
    a. ADPE/Common Property System
    b. Substitution
    c. Funding for the Common Property System is transferred from the Tandem Computer line item.
       Due to the substitution, DBOF cash was not affected.

000623

FY 1995 DBOF CAPITAL PURCHASES
FUNDING DISPOSITION OF DEFERRALS, CANCELLATIONS, SUBSTITUTIONS
NAVY
($ In 000)

13. Research and Development - NAWC — $200
    a. ADPE/Software Engineering Environment
    b. Substitution
    c. Funding for the Software Engineering Environment is transferred from the Tandem Computer line item. Due to this substitution, DBOF cash was not affected.

14. Research and Development - NAWC — $190
    a. ADPE/PM MARS (Pt. Mugu Multi-User Archival & Retrieval System) Expansion Warehouse
    b. Substitution
    c. Funding for the PM MARS Expansion Warehouse is transferred from the Tandem Computer line item. Due to the substitution, DBOF cash was not affected.

15. Research and Development - NAWC — $365
    a. ADPE/Replacement Items for C-LAN (Communication Local Area Network)
    b. Substitution
    c. Funding for these replacement items was transferred from the Tandem Computer line item. Due to the substitution, DBOF cash was not affected.

16. Research and Development - NAWC — $1,410
    a. ADPE/CALS CADII (Computer Aided Logistics System & Computer Aided Design II)
    b. Deferral and Substitution
    c. Funding from the deferred CALS/CADII line item was transferred to:
        Simulation Network Debrief System — $700
        Technical Information Support System — $710
    Due to these substitutions, DBOF cash was not affected.

000674

FY 1995 DBOF CAPITAL PURCHASES
FUNDING DISPOSITION OF DEFERRALS, CANCELLATIONS, SUBSTITUTIONS
NAVY
($ In 000)

17. Research and Development - NAWC — $700
    a. ADPE/Simulation Network Debrief System
    b. Substitution
    c. Funding for this item was transferred from the CALS CADII line item.
    Due to the substitution, DBOF cash was not affected.

18. Research and Development - NAWC — $713
    a. ADPE/Technical Information Support System
    b. Substitution
    c. Funding for this line item was transferred from the CALS/CADII line item and $710
    the Tandem Computer line item. $3
    Due to these substitutions, DBOF cash was not affected.

19. Research and Development - NAWC — $990
    a. ADPE/CALS Module Integrated Electronic Technical Manual/Pubs
    b. Deferral and Substitution
    c. Funds for this deferred line item have been transferred to:

ATR Real-Time Technology Development	$332
Software Workstation Upgrade	$170
Optical Disk System	$130
NAWC DBOF System	$131
Secure Network	$116
NAWC Corporate Budget System	$111

    Due to these substitutions, DBOF cash was not affected.

529000

FY 1995 DBOF CAPITAL PURCHASES
FUNDING DISPOSITION OF DEFERRALS, CANCELLATIONS, SUBSTITUTIONS
NAVY
($ in 000)

20. Research and Development - NAWC
    a. ADPE/ATR (Automatic Target Recognition) Real-Time Technology Development $332
    b. Substitution
    c. Funding for this line item to participate in the Tri-Service Automatic Target Recognition project was transferred from the CALS Module Integrated Electronic Technical Manual/Pubs. Due to these substitutions, DBOF cash was not affected.

21. Research and Development - NAWC
    a. ADPE/Software Workstation Upgrade $170
    b. Substitution
    c. Funding for these upgrades was transferred from the CALS Module Integrated Electronic Technical Manual/Pubs line item. Due to this substitution, DBOF cash was not affected.

22. Research and Development - NAWC
    a. ADPE/Optical Disk System $130
    b. Substitution
    c. Funding for this upgrade to an Optical Disk System was transferred from the CALS Module Integrated Electronic Technical Manual/Pubs line item. Due to this substitution, DBOF cash was not affected.

23. Research and Development - NAWC
    a. ADPE/NAWC DBOF System $131
    b. Substitution
    c. Funding for the replacement of obsolete computers was transferred from the CALS Module Integrated Electronic Technical Manual/Pubs line item. Due to this substitution, DBOF cash was not affected.

000676

FY 1995 DBOF CAPITAL PURCHASES
FUNDING DISPOSITION OF DEFERRALS, CANCELLATIONS, SUBSTITUTIONS
NAVY
($ In 000)

24. Research and Development - NAWC — $116
    a. ADPE/Secure Network
    b. Substitution
    c. Funding for the Secure Network was transferred from the CALS Module Integrated Electronic Technical Manual/Pubs line item. Due to this substitution, DBOF cash was not affected.

25. Research and Development - NAWC — $111
    a. ADPE/NAWC Corporate Budget System
    b. Substitution
    c. Funding to upgrade the obsolete computer technology was transferred from the CALS Module Integrated Electronic Manual/Pubs line item. Due to this substitution, DBOF cash was not affected.

26. Research and Development - NAWC — $125
    a. ADPE/Software Upgrades
    b. Cancellation
    c. N/A--Obligational authority and TOA removed by Congressional action

27. Research and Development - NAWC — $101
    a. ADPE/Xerox 4050 Printer
    b. Cancellation
    c. N/A--Obligational authority and TOA removed by Congressional action

28. Research and Development - NAWC — $100
    a. ADPE/Productivity Software (CASE, CAD)
    b. Cancellation
    c. N/A--Obligational authority and TOA removed by Congressional action

229000

FY 1995 DBOF C AL PURCHASES
FUNDING DISPOSITION OF DEFERRALS, CANCELLATIONS, SUBSTITUTIONS

NAVY
($ IN 000)

29. Research and Development - Naval Air Warfare Center (NAWC)		
a. Non-ADPE/Teradyne Zehntel 8500 Test System		$ 710
b. Cancellation and Non-ADPE and ADPE substitutions		
c. Funding for this item was transferred to:		
Computer Aided Graphics Workstations	$ 559	
COTS Facility H/W ASQ-212	$ 140	
Non-ADPE <$500K	$ 11	
Due to the substitutions, DBOF cash was not affected.		
30. Research and Development - NAWC		
a. Non-ADPE/Motion Simulation Table		$ 700
b. Cancellation and Non-ADPE and ADPE substitutions		
c. Funding for this item was transferred to:		
Switch Upgrade	$ 110	
Maintenance Control System	$ 120	
Blue Hose Installation for NAS	$ 264	
DCCF Upgrade	$ 180	
Non-ADPE <$500K	$ 26	
Due to the substitutions, DBOF cash was not affected.		
31. Research and Development - NAWC		
a. Non-ADPE/Anechoic Chamber Bldg 120		$ 500
b. Cancellation and Non-ADPE and ADPE substitutions		
c. Funding for this item was transferred to:		
UH-1N Avionics Tracking Suite	$ 260	
Imbedded Pilot Proficiency	$ 242	
Non-ADPE <$500K	$ (2)	
Due to the substitutions, DBOF cash was not affected.		

829000

FY 1995 DBOF (AL PURCHASES
FUNDING DISPOSITION OF DEFERRALS, CANCELLATIONS, SUBSTITUTIONS

NAVY
($ IN 000)

32. Research and Development - NAWC		
a. Non-ADPE/Maritime Multimission Interoperability Center		$1,300
b. Cancellation and Non-ADPE substitution		
c. Funding for this item was transferred to:		
Non-ADPE <$500K	$1,300	
Due to substitutions, DBOF cash was not affected.		
33. Research and Development - NAWC		
a. Non-ADPE/VXIBUS System (IAWS)		$1,300
b. Cancellation and Non-ADPE and ADPE substitutions		
c. Funding for this item was transferred to:		
COTS Simulation System	$ 905	
Non-ADPE <$500K	$ 395	
Due to the substitutions, DBOF cash was not affected.		
34. Research and Development - NAWC		
a. ADPE/Computer Aided Graphics Workstations		$ 559
b. Substitution		
c. Funding for this items was transferred from the Teradyne Zehntel 8500 Test System.		
Due to the substitution, DBOF cash was not affected.		
35. Research and Development - NAWC		
a. ADPE/Data Processing Systems		$ 971
b. Cancellation and Non-ADPE and ADPE substitutions		
c. Funding for this item was transferred to:		
UNIX Corporate Server Environment Expansion	$ 291	
ADP Equipment Upgrades	$ 242	
Classified Data Processing	$ 100	
64-Bit Multi-Processing	$ 100	
Resources Automated Mgmt System	$ 210	
Non-ADPE <$500K	$ 28	
Due to the substitutions, DBOF cash was not affected.		

629000

FY 1995 DBOF (AL PURCHASES
FUNDING DISPOSITION OF DEFERRALS, CANCELLATIONS, SUBSTITUTIONS

NAVY
($ IN 000)

36. Research and Development - NAWC		
a. ADPE/DFS Aerodynamic System		$ 810
b. Cancellation and Non-ADPE and ADPE substitutions		
c. Funding for this item was transferred to:		
Optical Disk Archiving System	$ 401	
Tac-4 and AFMSS Mission Planning System	$ 350	
Non-ADPE <$500K	$ 59	
Due to the substitutions, DBOF cash was not affected.		
37. Research and Development - NAWC		
a. ADPE/Centrifuge Control System		$ 450
b. Cancellation and Non-ADPE and ADPE substitutions		
c. Funding for this item was transferred to:		
Confocal Microscopy System	$ 153	
Helicopter Cockpit Training System	$ 128	
X-Ray Diffraction Upgrade	$ 141	
Non-ADPE <$500K	$ 28	
Due to the substitutions, DBOF cash was not affected.		
38. Research and Development - NAWC		
a. ADPE/Owl Laser System Enhancements		$ 410
b. Cancellation and Non-ADPE and ADPE substitutions		
c. Funding for this item was transferred to:		
Aircrew Prototyping System	$ 390	
Non-ADPE <$500K	$ 20	
Due to the substitutions, DBOF cash was not affected.		
39. Research and Development - NAWC		
a. ADPE/Core Computer Final Configuration		$ 550
b. Cancellation and Non-ADPE and ADPE substitutions		
c. Funding for this item was transferred to:		
Reconfiguration Crewstation Upgrade	$ 563	
Non-ADPE <$500K	$ (13)	
Due to the substitutions, DBOF cash was not affected.		

000680

FY 1995 DBOF C AL PURCHASES
FUNDING DISPOSITION OF DEFERRALS, CANCELLATIONS, SUBSTITUTIONS

NAVY
($ IN 000)

40. Research and Development - NAWC
    a. ADPE/COTS Simulation System — $ 905
    b. Substitution
    c. Funding for this item was transferred from the VXIBUS System (IAWS). Due to the substitution, DBOF cash was not affected.

41. Research and Development - NAWC
    a. ADPE/Reconfiguration Crewstation Upgrade — $ 563
    b. Substitution
    c. Funding for this item was transferred from the Core Computer Final Configuration. Due to the substitution, DBOF cash was not affected.

42. Research and Development - NAWC
    a. ADPE/Optical Disk Archiving System — $ 401
    b. Substitution
    c. Funding for the Optical Disk Archiving System was transferred from the DFS Aerodynamic System. Due to the substitution, DBOF cash was not affected.

43. Research and Development - NAWC
    a. ADPE/Aircrew Prototyping Station — $ 390
    b. Substitution
    c. Funding for the Aircrew Prototyping Station was transferred from the Owl Laser System Enhancements. Due to the substitution, DBOF cash was not affected.

44. Research and Development - NAWC
    a. ADPE/TAC 4 and AFMSS Mission Planning System — $ 350
    b. Substitution
    c. Funding for the TAC 4 and AFMSS Mission Planning System was transferred from the DFS Aerodynamic System. Due to the substitution, DBOF cash was not affected.

000681

FY 1995 DBOF C AL PURCHASES
FUNDING DISPOSITION OF DEFERRALS, CANCELLATIONS, SUBSTITUTIONS

NAVY
($ IN 000)

45. Research and Development - NAWC
    a. ADPE/UNIX Corporate Server Environment Expansion $ 291
    b. Substitution
    c. Funding for the UNIX Corporate Server Environment Expansion was transferred from the Data Processing Systems. Due to the substitution, DBOF cash was not affected.

46. Research and Development - NAWC
    a. ADPE/Blue Hose Installation for NAS $ 264
    b. Substitution
    c. Funding for this item was transferred from the Motion Simulation Table. Due to the substitution, DBOF cash was not affected.

47. Research and Development - NAWC
    a. ADPE/UH-1N Avionics Tracking Suite $ 260
    b. Substitution
    c. Funding for this item was transferred from the Anechoic Chamber Bldg. 120. Due to the substitution, DBOF cash was not affected.

48. Research and Development - NAWC
    a. ADPE/ADP Equipment Upgrades $ 242
    b. Substitution
    c. Funding for this item was transferred from the Data Processing Systems. Due to the substitution, DBOF cash was not affected.

49. Research and Development - NAWC
    a. ADPE/Imbedded Pilot Proficiency $ 242
    b. Substitution
    c. Funding for this item was transferred from the Anechoic Chamber Bldg. 120. Due to the substitution, DBOF cash was not affected.

000682

FY 1995 DBOF C AL PURCHASES
FUNDING DISPOSITION OF DEFERRALS, CANCELLATIONS, SUBSTITUTIONS

NAVY
($ IN 000)

50. Research and Development - NAWC
    a. ADPE/DCCF Upgrade $ 180
    b. Substitution
    c. Funding for this item was transferred from the Motion Simulation Table. Due to the substitution, DBOF cash was not affected.

51. Research and Development - NAWC
    a. ADPE/Confocal Microscopy System $ 153
    b. Substitution
    c. Funding for the Confocal Microscopy System was transferred from the Centrifuge Control System. Due to the substitution, DBOF cash was not affected.

52. Research and Development - NAWC
    a. ADPE/X-Ray Diffraction Upgrade $ 141
    b. Substitution
    c. Funding for the X-Ray Diffraction Upgrade was transferred from the Centrifuge Control System. Due to the substitution, DBOF cash was not affected.

53. Research and Development - NAWC
    a. ADPE/COTS Facility H/W ASQ-212 $ 140
    b. Substitution
    c. Funding for the COTS Facility H/W ASQ-212 was transferred from the Teradyne Zehntel 8500 test System. Due to the substitution, DBOF cash was not affected.

54. Research and Development - NAWC
    a. ADPE/Helicopter Cockpit Training System $ 128
    b. Substitution
    c. Funding for the Helicopter Cockpit Training System was transferred from the Centrifuge Control System. Due to the substitution, DBOF cash was not affected.

000683

FY 1995 DBOF C AL PURCHASES
FUNDING DISPOSITION OF DEFERRALS, CANCELLATIONS, SUBSTITUTIONS

NAVY
($ IN 000)

55. Research and Development - NAWC
    a. ADPE/Maintenance Control System — $ 120
    b. Substitution
    c. Funding for the Maintenance Control System was transferred from the Motion Simulation Table. Due to the substitution, DBOF cash was not affected.

56. Research and Development - NAWC
    a. ADPE/Classified Data Processing — $ 100
    b. Substitution
    c. Funding for the Classified Data Processing was transferred from the Data Processing Systems. Due to the substitution, DBOF cash was not affected.

57. Research and Development - NAWC
    a. ADPE/64-Bit Multi-Processing — $ 100
    b. Substitution
    c. Funding for the 64-Bit Multi-Processing was transferred from the Data Processing Systems. Due to the substitution, DBOF cash was not affected.

58. Research and Development - NAWC
    a. ADPE/Resources Automated Mgmt System — $ 210
    b. Substitution
    c. Funding for the Resource Automated Mgmt System was transferred from the Data Processing Systems. Due to the substitution, DBOF cash was not affected.

59. Research and Development - NAWC
    a. ADPE/Switch Upgrade — $ 110
    b. Substitution
    c. Funding for the Switch Upgrade was transferred from the Motion Simulation Table. Due to the substitutuion, DBOF cash was not affected.

0006984

FY 1995 DBOF Capital Program Reconcilliation

FY 1995 DBOF Capital Purchases
Deferrals, Cancellations, Substitutions

The following describes the changes in the Capital Purchase Program from the FY 1995 President's Budget to the FY 1995 column of the FY 1996/1997 President's Budget. The categories are as follows:

a.) Category of purchase/project name, as noted in the FY 1995 President's Budget
b.) Disposition of project: cancellation, deferral and/or substitution
c.) Explanation for cancellation or deferral and substitution

689000

NAVAL UNDERSEA WARFARE CENTER
FY 1995 DBOF CAPITAL PURCHASES
DEFERRALS, CANCELLATIONS, SUBSTITUTIONS

Department of the Navy
($ In 000)

1. R&D - Naval Undersea Warfare Center
   a. Environmental Non-ADP Equipment (Minor) 712
   b. Substitution
   c. New Requirement as reported and approved in budget submitted 6/94 for Tow Body S 500
   Will be used to collect data to determine environmental effects in shallow water that impact acoustic detection and classification.
   New Requirement as reported and approved in budget submitted 6/94 for Transducer 212
   Hull Array Lab Upgrade (L086)
   Will be used for the design and development of transducers and arrays for future sonar systems.

2. R&D - Naval Undersea Warfare Center
   a. Productivity Non-ADP Equipment (Minor) 1936
   b. Substitution
   c. New Requirement as reported and approved in budget submitted 6/94 for Deep Dept 1064
   Diameter Pressure Vessel (L091)
   Will provide NUWC with the the required vessel for conducting full pressure depth sound vibration testing of large diameter heavyweight vehicles under operating conditions.
   New Requirement as reported and approved in budget submitted 6/94 for Antenna Re 512
   Modernization (L097)
   Will provide an up-to-date facility for conducting research and development and testing of communication systems for future submarines.
   New Requirement as reported and approved in budget submitted 6/94 for ESM Test E 360
   Will provide NUWC with the facility for evaluating equipment designs and architecture for use in an automated Electronic Support Measures (ESM) system.

989000

NAVAL UNDERSEA WARFARE CENTER

FY 1995 DBOF CAPITAL PURCHASES
DEFERRALS, CANCELLATIONS, SUBSTITUTIONS

Department of the Navy
($ In 000)

3.	R&D - Naval Undersea Warfare Center	
	a. Productivity ADP Equipment/High Performance Workstations (L021)	300
	b. Cancellation	
	c. Congressional reduction to DBOF capital program.	
4.	R&D - Naval Undersea Warfare Center	
	a. New Mission ADP Equipment/VAX 6000 Upgrade (L043)	207
	b. Cancellation	
	c. Congressional reduction to DBOF capital program.	
5.	R&D - Naval Undersea Warfare Center	
	a. Replacement ADP Equipment (Minor)	260
	b. Substitution	
	c. New Requirement as reported and approved in budget submitted 6/94 for Secure Intr Communications Connection (L062)	107
	Will be used to link dissimilar facilities at geographically remote sites in such a manner to allow their simulated entities to be exercised concurrently in a virtual environment as part of a Distributed Interactive Simulation.	
	New Requirement as reported and approved in budget submitted 6/94 for Secure Net Management Center (L100)	153
	Will provide the equipment necessary to optimize secure network performance thru traffic analysis, provide network fault isolation, and will also provide fiber optic network configuration management.	

000687

NAVAL UNDERSEA WARFARE CENTER

FY 1995 DBOF CAPITAL PURCHASES
DEFERRALS, CANCELLATIONS, SUBSTITUTIONS

Department of the Navy
($ In 000)

6.	R&D - Naval Undersea Warfare Center	
	a. Productivity Non-ADP Equipment/CASS RF Station (L065)	2286
	b. Cancellation	
	c. Congressional reduction to DBOF capital program.	
7.	R&D - Naval Undersea Warfare Center	
	a. Productivity ADP Equipment/Computer Aided Manufacturing & Design (L072)	400
	b. Cancellation	
	c. Congressional reduction to DBOF capital program.	
8.	R&D - Naval Undersea Warfare Center	
	a. Productivity ADP Equipment/CASS Support Test Program Sets (L056)	120
	b. Cancellation	
	c. Congressional reduction to DBOF capital program.	
9.	R&D - Naval Undersea Warfare Center	
	a. Replacement ADP Equipment/TD/CMS Processor Upgrade (L076)	190
	b. Cancellation	
	c. Congressional reduction to DBOF capital program.	

889000

FY 1995 DBOF Capital Program Reconcilliation

FY 1995 DBOF Capital Purchases
Funding Disposition of Deferrals, Cancellations, Substitutions

The following describes the changes in the Capital Purchase Program from the FY 1995 President's Budget to the FY 1995 column of the FY 1996/1997 President's Budget. The categories are as follows:

a.) Category of purchase/project name, as noted in the FY 1995 President's Budget
b.) Disposition of project: cancellation, deferral and/or substitution
c.) Disposition of related funding

689000

NAVAL UNDERSEA WARFARE CENTER
FY 1995 DBOF CAPITAL PURCHASES
FUNDING DISPOSITION OF DEFERRALS, CANCELLATIONS, SUBSTITUTIONS

Department of the Navy
($ in 000)

1.	R&D - Naval Undersea Warfare Center	
	a. Environmental Non-ADP Equipment (Minor)	712
	b. Tow Body Sled (L082) Substitution	500
	Transducer and Hull Array Lab Upgrade (L086) Substitution	212
	c. No change in funding disposition	
2.	R&D - Naval Undersea Warfare Center	
	a. Various Non-ADP/ADP Equipment (Minor)	863
	b. Standard Submarine Radio Room (L088) Substitution	465
	Submarine Sail Measurement Platform (L090) Substitution	398
	c. No change in funding disposition	
3.	R&D - Naval Undersea Warfare Center	
	a. Productivity Non-ADP Equipment (Minor)	1936
	b. Deep Depth Large Diameter Pressure Vessel (L091) Substitution	1064
	Antenna Range Modernization (L097) Substitution	512
	ESM Test Bed (L102) Substitution	360
	c. No change in funding disposition	
4.	R&D - Naval Undersea Warfare Center	
	a. Productivity ADP Equipment (Minor)	590
	b. Submarine Image Transmission Laboratory (L089) Substitution	200
	Central Archival System (L094) Substitution	160
	Worldwide Portable Satellite Communications System (L103) Substitution	230
	c. No change in funding disposition	

069000

NAVAL UNDERSEA WARFARE CENTER

FY 1995 DBOF CAPITAL PURCHASES

FUNDING DISPOSITION OF DEFERRALS, CANCELLATIONS, SUBSTITUTIONS

Department of the Navy
($ in 000)

5.	R&D - Naval Undersea Warfare Center	
	a. New Mission Non-ADP Equipment (Minor)	614
	b. Towed & Deployed Sensor Laboratory (L087) Substitution	155
	Multi-Weapon Real-time Recording (L105) Substitution	144
	Simulation Server Project (L104) Substitution	160
	IRIS Workstations (L099) Substitution	155
	c. No change in funding disposition	
6.	R&D - Naval Undersea Warfare Center	
	a. Productivity ADP Equipment/High Performance Workstations (L021)	300
	b. Cancellation	
	c. N/A. Obligational authority and TOA removed by Congressional action.	
7.	R&D - Naval Undersea Warfare Center	
	a. New Mission ADP Equipment/VAX 6000 Upgrade (L043)	207

000691

NAVAL UNDERSEA WARFARE CENTER

FY 1995 DBOF CAPITAL PURCHASES
FUNDING DISPOSITION OF DEFERRALS, CANCELLATIONS, SUBSTITUTIONS

Department of the Navy
($ in 000)

b. Cancellation
c. N/A. Obligational authority and TOA removed by Congressional action.

8. R&D - Naval Undersea Warfare Center

a. Replacement ADP Equipment (Minor)	260
b. Secure Intralab Communications Connection (L062) Substitution	107
Secure Network Management Center (L100) Substitution	153

c. No change in funding disposition

269000

NAVAL UNDERSEA WARFARE CENTER

FY 1995 DBOF CAPITAL PURCHASES

FUNDING DISPOSITION OF DEFERRALS, CANCELLATIONS, SUBSTITUTIONS

Department of the Navy
($ in 000)

9. R&D - Naval Undersea Warfare Center
   a. Productivity Off-the-Shelf Software (Minor) 85
   b. Cancellation
   c. N/A. Obligational authority and TOA removed by Congressional action.

10. R&D - Naval Undersea Warfare Center
   a. Replacement Off-the-Shelf Software (Minor) 89
   b. Cancellation
   c. N/A. Obligational authority and TOA removed by Congressional action.

11. R&D - Naval Undersea Warfare Center
   a. New Mission Off-the-Shelf Software (Minor) 90
   b. Cancellation
   c. N/A. Obligational authority and TOA removed by Congressional action.

12. R&D - Naval Undersea Warfare Center
   a. Productivity Non-ADP Equipment/CASS RF Station (L065) 2286
   b. Cancellation
   c. N/A. Obligational authority and TOA removed by Congressional action.

13. R&D - Naval Undersea Warfare Center
   a. Productivity ADP Equipment/Computer Aided Manufacturing & Design (L072) 400
   b. Cancellation
   c. N/A. Obligational authority and TOA removed by Congressional action.

000693

NAVAL UNDERSEA WARFARE CENTER

FY 1995 DBOF CAPITAL PURCHASES

FUNDING DISPOSITION OF DEFERRALS, CANCELLATIONS, SUBSTITUTIONS

Department of the Navy
($ In 000)

14.	R&D - Naval Undersea Warfare Center	
	a. Productivity ADP Equipment/CASS Support Test Program Sets (L056)	120
	b. Cancellation	
	c. N/A. Obligational authority and TOA removed by Congressional action.	
15.	R&D - Naval Undersea Warfare Center	
	a. Replacement ADP Equipment/TD/CMS Processor Upgrade (L076)	190
	b. Cancellation	
	c. N/A. Obligational authority and TOA removed by Congressional action.	

000694

FY 1995 DBOF Capital Program Reconciliation

FY 1995 DBOF Capital Purchases
Deferrals, Cancellations, Substitutions

The following describes the changes in the Capital Purchase Program from the FY 1995 President's Budget to the FY 1995 column of the FY 1996/1997 President's Budget. The categories presented are as follows:

a.) Category of purchase/project name, as noted in the FY 1995 President's Budget
b.) Disposition of project: cancellation, deferral and/or substitution
c.) Explanation for cancellation or deferral and substitution/disposition of related funding

000695

FY 1995 DBOF CAPITAL PURCHASES
DEFERRALS, CANCELLATIONS, SUBSTITUTIONS

Navy (NCCOSC)
($ in 000)

A. CANCELLATIONS

1. R&D - Naval Command, Control and Ocean Surveillance Center
   a. Non-ADPE and Telec. Equip./CASS Test Systems 4,450
   b. Cancellation 2,275
   c. The FY 1995 President's Budget included $4,550K of FY 1995 authority for the acquisition of two CASS test stations. These acquisitions were based on identified requirements at that time. The Congressional reduction to the DBOF capital program and a subsequent re-evaluation of workload resulted in the reduction of one station ($2,275K).

2. R&D - Naval Command, Control and Ocean Surveillance Center
   a. ADP and Telec. Equip./Supercomputer System 2,000
   b. Cancellation 1,553
   c. High Performance Computing equipment is developed in a highly competitive environment experiencing rapid turnover in technology. As a result, some of the items in the FY 1995 President's Budget have become obsolete and are no longer needed, especially given the limitations on the FY 1995 DBOF capital program due to Congressional reductions.

3. R&D - Naval Command, Control and Ocean Surveillance Center
   a. ADP and Telec. Equip./Network Backplane Upgrade 200
   b. Cancellation 200
   c. The FY 1995 President's Budget included $200K for the purchase and installation of five independent fiber optic concentrator upgrades (network backplane upgrades) at a unit cost of $40K each. The change in the CPP threshold removed these items from the program.

4. R&D - Naval Command, Control and Ocean Surveillance Center
   a. ADP and Telec. Equip./ADA Software Development System 100
   b. Cancellation 100
   c. This item was to set up an educational software engineering lab. The project was cancelled because maintenance costs were determined to be significantly higher than the original planning estimate, making this project too costly to pursue at this time.

000696

5. R&D - Naval Command, Control and Ocean Surveillance Center
   a. Software Development/Modification of Command Local Systems 145
   b. Cancellation 85
   c. The FY 1995 President's Budget included CPP authority for a software development (modification) project planned for the NISE West Vallejo site. Due to the planned base closure of the Vallejo site (and relocation to NISE West San Diego), this project is no longer cost effective.

B. CANCELLATIONS WITH SUBSTITUTIONS

6. R&D - Naval Command, Control and Ocean Surveillance Center
   a. ADP and Telec. Equip./Computer System Upgrades 152
   b. Deferral and (ADP and Telec. Equip.) Substitution 152
   c. This line item was deferred due to the FY 1995 Congressional reduction to DBOF capital program. The FY 1996 President's Submission contains funding that will enable NCCOSC to proceed with the computer systems upgrade in FY 1996. Funding was realigned to higher priority items (see section C).

7. R&D - Naval Command, Control and Ocean Surveillance Center
   a. ADP and Telec. Equip./INGRES Site Licenses 50
   b. Cancellation and (ADP and Telec. Equip.) Substitution 50
   c. This item was re-titled as the Software License for Business System Maintenance Alpha, and is included as part of item #13. This acquisition is for software licenses to support maintenance and re-engineering requirements on the Alpha class business systems computer. The original requirement was cancelled because the title changed and it was assumed this requirement was cancelled. Funding was realigned to higher priority items (see section C).

8. R&D - Naval Command, Control and Ocean Surveillance Center
   a. ADP and Telec. Equip./Software CASE Tools 20
   b. Cancellation and (ADP and Telec. Equip.) Substitution 20
   c. This item was cancelled due to the revised CPP threshold. Funding was realigned to higher priority items (see section C).

000697

C. SUBSTITUTIONS

9. R&D - Naval Command, Control and Ocean Surveillance Center
   a. ADP and Telec. Equip./Videoteleconferencing System
   b. Substitution 878
   c. The 1993 base closure process directed the formation of the NCCOSC In-Service Engineering East Coast Division (NISE East) from four geographically dispersed activities. NISE East was created on 9 January 1994, less than one month before submission of the FY 1995 President's Budget. As NISE East explored ways to reduce the cost of doing business, the use of videoteleconferencing (VTC) provided an opportunity to effectively operate as one organization while minimizing travel costs. Accordingly, this item (a VTC system for large meetings) was substituted for others in the FY 1995 President's Budget.

10. R&D - Naval Command, Control and Ocean Surveillance Center
   a. ADP and Telec. Equip./Fiber Optics Local Area Network
   b. Substitution 455
   c. This item, which will establish the capacity to integrate state-of-the-art technologies in high speed, multi-megabit and gigabit networking, multimedia collaborative planning tools and distributed network management capabilities into Navy and Joint Service Combat, and Command and Control systems, is required for to support several major programs in FY 1995, including the Joint Interoperability Demonstration - 1995. The support required by these programs was not known at the time of the FY 1995 President's Budget.

000698

11. R&D - Naval Command, Control and Ocean Surveillance Center
   a. ADP and Telec. Equip./Data Warehouse
   b. Substitution 385
   c. The NCCOSC Corporate Information Management (CIM) Program is based on data warehousing as a mandatory capability to store and retrieve historical information. This requirement was emerging at the time of the FY 1995 President's submission and information about the technology was not available.

12. R&D - Naval Command, Control and Ocean Surveillance Center
   a. ADP and Telec. Equip./Multi-User License for Employee Access Tools
   b. Substitution 223
   c. At the time the FY 1995 Budget submission was made, NCCOSC had just begun to assess a variety of new data access tools. These tools will be an important tool for employees requiring access to corporate data, and are required to reduce the reliance on labor intensive software development and maintenance efforts required by traditional systems.

13. R&D - Naval Command, Control and Ocean Surveillance Center
    a. ADP and Telec. Equip./Automated Multi-Point Control Unit
    b. Substitution 200
    c. The 1993 base closure process directed the formation of the NCCOSC In-Service Engineering East Coast Division (NISE East) from four geographically dispersed activities. NISE East was created on 9 January 1994 less than one month before submission of the FY 1995 President's Budget. As NISE East explored ways to reduce the cost of doing business, the use of videoteleconferencing (VTC) provided an opportunity to effectively operate as one organization while also minimizing travel costs. Accordingly, this item (a system to allow numerous small simultaneous VTC meetings) was substituted for others in the FY 1995 President's Budget.

14. R&D - Naval Command, Control and Ocean Surveillance Center
    a. ADP and Telec. Equip./Corporate Desktop Server
    b. Substitution 200
    c. Procurement of a Corporate Desktop Server in FY 1995 is critical in allowing NCCOSC to effectively manage its finances and operations. This server will provide personnel access to the corporate database, and is part of an overall NCCOSC move to centralized corporate data (eliminating the need to maintain and reconcile multiple sources of data).

15. R&D - Naval Command, Control and Ocean Surveillance Center
    a. ADP and Telec. Equip./High Power Extraction System
    b. Substitution 140
    c. Equipment to perform rapid and accurate modeling of high power transistors and amplifiers, needed to support a wide variety of programs, was not previously available.

16. R&D - Naval Command, Control and Ocean Surveillance Center
    a. ADP and Telec. Equip./Multi-User License for NFAS Views/Reports
    b. Substitution 100
    c. At the time of the FY 1995 President's Budget, NCCOSC had just begun to assess a variety of new data access tools. These tools will be an important capability for employees requiring access to corporate data, and are required to reduce the reliance on labor intensive software development/maintenance efforts required by traditional systems.

000639

17. R&D - Naval Command, Control and Ocean Surveillance Center
    a. ADP and Telec. Equip./Personal Computer Client Server
    b. Substitution
    c. The PC Network Server requirement was revised after the original submission because of changes in technology. FY 1995 procurement of a PC Network Server is critical for NCCOSC to manage its finances and operations by providing managers, administrators, and employees with NCCOSC-wide availability to tools to access and update the corporate database.

18. R&D - Naval Command, Control and Ocean Surveillance Center
    a. ADP and Telec. Equip./Access Control System, Warminster
    b. Substitution
    c. When part of the Naval Air Warfare Center (NAWC) Warminster, PA transferred to the NCCOSC RDT&E Division (NRaD) as directed under base closure, security functions continued to be provided by NAWC. Within the next year, NAWC Warminster is scheduled to close, with NRaD remaining and assuming all host responsibilities. At the time of the 1995 President's Budget, it was not known that NRaD would become responsible for the site's security.

FY 1995 DBOF Capital Program Reconciliation

FY 1995 DBOF Capital Purchases
Deferrals, Cancellations, Substitutions

The following describes the changes in the Capital Purchase Program from the FY 1995 President's Budget to the FY 1995 column of the FY 1996/1997 President's Budget. The categories are as follows:

a.) Category of purchase/project name, as noted in the FY 1995 President's Budget
b.) Disposition of project: cancellation, deferral and/or substitution
c.) Explanation for cancellation or deferral and substitution

000701

FY 1995 DBOF Capital Purchases
Funding Disposition of Deferrals, Cancellations, Substitutions

Navy
($ in 000)

1 Naval Research Laboratory

a.

1. ADPE/Oceanographic Data Visualization, Display and Analysis System	$189,000
2. ADPE/Scientific Data Analysis Network	$119,000
3. ADPE/Silicon Graphics Challenge/2 Super-Mini COmputer	$200,000
4. ADPE/High Capacity, High Performance Memory System	$300,000
5. ADPE/Secure Supercomputer	$625,000
6. ADPE/File Server/Archiver Connection to Cray Y-MP-El	$150,000
7. ADPE/Parallel Processing Sub-System	$126,000
8. ADPE/Optic Storage Sub-System	$150,000
	$1,859,000

b.

1. cancellation
2. cancellation
3. cancellation
4. cancellation
5. cancellation
6. cancellation
7. cancellation
8. cancellation

c. Congressional reduction to DBOF capital program.

007702

FY 1995 DBOF pital Purchases
Deferrals, Cancellations, Substitutions

Navy
($ in 000)

1 Research and Development-Naval Research Lab
  a. Non-ADP/Distributed Weapons Assessment Simulation $2,500
  b. Cancellation
  c. Restructuring of CPP priorities based on current R&D efforts.

002703

FY 1995 DBOF Capital Program Reconcilliation

FY 1995 DBOF Capital Purchases
Funding Disposition of Deferrals, Cancellations, Substitutions

The following describes the changes in the Capital Purchase Program from the FY 1995 President's Budget to the FY 1995 column of the FY 1996/1997 President's Budget. The categories are as follows:

a.) Category of purchase/project name, as noted in the FY 1995 President's Budget
b.) Disposition of project: cancellation, deferral and/or substitution
c.) Disposition of related funding

000704

FY 1995 DBOF Capital Purc...ses
Funding Disposition of Deferrals, Cancellations, Substitutions

Navy
($ in 000)

1 Naval Research Laboratory

a.

1. ADPE/Oceanographic Data Visualization, Display and Analysis System	$189,000
	$119,000
2. ADPE/Scientific Data Analysis Network	$200,000
3. ADPE/Silicon Graphics Challenge/2 Super-Mini COmputer	$300,000
4. ADPE/High Capacity, High Performance Memory System	$625,000
5. ADPE/Secure Supercomputer	$150,000
6. ADPE/File Server/Archiver Connection to Cray Y-MP-El	$126,000
7. ADPE/Parallel Processing Sub-System	$150,000
8. ADPE/Optic Storage Sub-System	$1,859,000

b.

1. cancellation
2. cancellation
3. cancellation
4. cancellation
5. cancellation
6. cancellation
7. cancellation
8. cancellation

c. N/A-Obligational authority and TOA removed by Congressional action.

000705

Funding Disposition of Defer. . Cancellations, Substitutions

Navy
($ in 000)

1 Naval Research Laboratory	
a. Non-ADP/Distributed weapons Assessment Simulation	$2,500
b. Cancellation	
c. Redirected to the following Non-ADPE items:	
1. 400k V TEM and Environmental Cell	$1,211
2. Infrared Compact Range Facility	$1,140
3. High Resolution X-ray Diffractometer	$280
	$2,631

902000

DEFENSE BUSINESS OPERATIONS FUND - NAVY
INFORMATION SERVICES
FEBRUARY 1995

Department of Navy Information Service activities provide regional Base Level Computing (BLC) and automated information services (AIS) and manage certain remote facilities. These activities design, develop and maintain standard Navy automated information systems and provide automated data processing support. Naval Computer and Telecommunication Stations (NAVCOMTELSTAs) are multiprocessing and multiprogramming time sharing service centers which provide information service support to Navy customers. The Fleet Material Support Office (FMSO) is a Central Design Agent providing maintenance and development of AIS for its customers, primarily the Naval Supply Command, as well as other Navy, Defense agency and non-federal activities.

Activity composition:

NAVCOMTELSTA Washington	Washington, DC
NAVCOMTELSTA Pensacola	Pensacola, FL
NCTAMS LANT Norfolk	Norfolk, VA
NAVCOMTELSTA San Diego	San Diego, CA
NAVCOMTELDET San Francisco	San Francisco, CA
NAVCOMTELSTA Jacksonville	Jacksonville, FL
NAVCOMTELSTA New Orleans	New Orleans, LA
NCTAMS EASTPAC	Pearl Harbor, HI
NAVCOMTELSTA Newport	Newport, RI
Fleet Material Support Office	Mechanicsburg, PA

Cost of Goods Sold:

FY 1994	FY 1995	FY 1996	FY 1997
430.7	206.6	208.5	207.5

In FY 1995 the Cost of Goods Sold declined by half from the previous year as the data processing installation portion of the NAVCOMTELSTAs transferred to the Defense Information Systems Agency in FY 1994. In FY 1996 and FY 1997 costs for the business activity remain relatively constant.

Revenue:

FY 1994	FY 1995	FY 1996	FY 1997
443.4	206.5	202.0	206.8

Revenue decreases in FY 1995 due to the transfer noted above. In FY 1996 there is a slight decrease, reflecting a negative recoupment. FY 1997 increases with inflation.

Net/Accumulated Operating Result:

NOR in FY 1994 is a positive $14.4 million, while AOR in that year is $19.5 million. This result is better than that budgeted. NOR in FY 1995 is -$13.8 million and incorporates transfers to DISA of $14.7 million. AOR is $5.7 million. NOR for FY 1996 is -$5.7 million, resulting in a zero AOR. NOR and AOR are zero for FY 1997.

Unit Cost and Customer Revenue Rate:

	FY 1994	FY 1995	FY 1996	FY 1997
Unit Cost:				
Direct Labor	49.08	45.07	46.07	49.36
CPU Time	58.47	48.10	46.98	--
Support Services	33.39	31.58	29.23	--

This business area employs a number of cost measures, including cost per hour for programmers, cost per specific service accomplished and straight costs for certain reimbursable services and umbrella contracts managed by the activity. The cost per unit drops in FY 1995, reflecting the transfer of DPI services to DISA, then remains relatively constant in FY 1996. In FY 1997 the remaining DPI site in this business activity is realigned to DISA. This obviates the need for the last two measures shown above.

The composite customer revenue rates in FY 1995 decrease by 5.4 percent for NCTC and increase 9.4 percent for FMSO. In FY 1996 the respective rates increase .5 and .1 percent, reflecting a negative recoupment in that year. The rate increases with inflation in FY 1997, 4.2 percent for NCTC and 7.2 percent for FMSO.

Economies and Efficiencies:

This business area has assumed efficiencies of $1.1 million in FY 1995 and a further $1.0 million in FY 1996 as part of a Navy-wide initiative to reduce costs at DBOF activities.

End strength and Workyears:

	FY 1994	FY 1995	FY 1996	FY 1997
End Strength				
Civilian	2,464	2,248	2,233	2,231
Military	169	135	103	103
Workyears				
Civilian	3,507	2,235	2,216	2,214
Military	125	130	99	99

Capital Budget Authority:

FY 1994	FY 1995	FY 1996	FY 1997
2,141	1,346	1,250	1,150

DEFENSE BUSINESS OPERATIONS FUND
DEPARTMENT OF THE NAVY
INFORMATION SERVICES
REVENUE AND EXPENSES
(Dollars in Millions)

	FY 1994	FY 1995	FY 1996	FY 1997
Revenue:				
Gross Sales	443.4	206.5	202.0	206.8
Operations	433.9	204.7	200.1	204.8
Capital Surcharge	0.0	0.0	0.0	0.0
Depreciation except Maj Const	9.4	1.9	1.9	2.0
Major Construction Depreciation	0.0	0.0	0.0	0.0
Other Income	0.0	0.0	0.0	0.0
Refunds/Discounts (-)	0.0	0.0	0.0	0.0
Total Income	443.4	206.5	202.0	206.8
Expenses:				
Cost of Materiel Sold from Inventory	0.0	0.0	0.0	0.0
Negotiated Purchases from Customers	0.0	0.0	0.0	0.0
Transportation	4.9	2.7	2.6	2.6
Salaries and Wages:	0.0	0.0	0.0	0.0
Military Personnel	7.1	11.9	5.1	5.2
Civilian Personnel	158.3	122.1	124.0	127.3
Materials, Supplies and	0.0	0.0	0.0	0.0
Parts used in Operations	76.3	17.6	19.1	18.0
Facility Repair Charge	0.7	0.6	0.6	0.5
Depreciation - Capital	9.4	1.9	1.9	2.0
Contracted Engineering Services	4.5	3.6	3.9	3.0
Lease Costs	8.4	1.5	1.3	1.2
Purchased Utilities	9.8	2.1	4.3	4.4
Purchased Communications	6.7	0.6	0.6	0.7
Equipment Maintenance	10.1	3.5	3.6	3.1
Fuel	0.0	0.0	0.0	0.0
Other Expenses	132.7	37.6	40.6	38.8
Total Expenses	429.0	205.6	207.7	206.8
Operating Result	14.4	0.9	(5.7)	0.0
Less Capital Surchg Reservation	0.0	0.0	0.0	0.0
Plus Appropriations Affecting NOR/AOR	0.0	0.0	0.0	0.0
Other Changes Affecting NOR/AOR	0.0	(14.7)	0.0	0.0
Net Operating Result	14.4	(13.8)	(5.7)	0.0
Prior Year AOR	5.1	19.5	5.7	(0.0)
Accumulated Operating Result	19.5	5.7	(0.0)	(0.0)

BUSINESS AREA ANALYSIS
DEPARTMENT OF THE NAVY
INFORMATION SERVICES
SOURCE OF REVENUE
(Dollars in Millions)

	FY 1994	FY 1995	FY 1996	FY 1997
1. New Orders	500.0	206.4	175.3	203.3
a. Orders from DoD Components	227.9	115.0	87.8	114.4
Department of the Navy	181.1	91.1	64.9	92.1
Operations and Maintenance, Navy	129.2	70.4	44.7	71.1
Operations and Maintenance, Marine Corps	4.2	2.2	2.2	2.2
O&M, Navy Reserve	5.2	4.5	4.5	4.5
O&M, Marine Corps Reserve	0.0	0.0	0.0	0.0
Aircraft Procurement, Navy	0.8	0.0	0.0	0.0
Weapons Procurement, Navy	0.0	0.0	0.0	0.0
Shipbuilding & Conversion, Navy	0.9	1.1	0.9	1.5
Other Procurement, Navy	34.9	11.7	11.7	11.7
Procurement, Marine Corps	0.0	0.0	0.0	0.0
Family Housing, Navy and Marine Corps	0.0	0.0	0.0	0.0
Research, Development, Test & Eval, Navy	0.8	0.6	0.6	0.6
Military Construction, Navy	0.0	0.0	0.0	0.1
Other Navy Appropriations	5.0	0.5	0.4	0.5
Other Marine Corps Appropriations	0.0	0.0	0.0	0.0
Department of the Army	14.1	5.9	5.3	5.3
Army Operation & Maintenance Accounts	8.8	5.9	5.3	5.3
Army Res, Dev, Test & Eval Accounts	0.0	0.0	0.0	0.0
Army Procurement Accounts	4.7	0.0	0.0	0.0
Army Other	0.7	0.0	0.0	0.0
Department of the Air Force	7.7	2.7	2.8	2.4
Air Force Operation & Maintenance Accounts	5.9	2.7	2.8	2.4
Air Force Res, Dev, Test & Eval Accounts	0.0	0.0	0.0	0.0
Air Force Procurement Accounts	1.8	0.0	0.0	0.0
Air Force Other	0.0	0.0	0.0	0.0
DoD Appropriated Accounts	24.9	15.4	14.7	14.5
Base Closure and Realignment	0.0	0.0	0.0	0.0
Operation & Maintenance Accounts	22.3	15.4	14.5	14.3
Res, Dev, Test & Eval Accounts	0.0	0.0	0.0	0.0
Procurement Accounts	0.0	0.0	0.0	0.0
DoD Other	2.6	0.0	0.2	0.2
b. Orders from DBOF Business Areas	252.0	80.8	75.7	76.4
c. Total DoD	479.9	195.8	163.5	190.8
d. Other Orders	20.1	10.6	11.8	12.6
Other Federal Agencies	12.6	4.4	5.4	5.6
Trust Funds (including FMS)	7.5	5.1	5.1	5.5
Non Federal Agencies	0.0	1.1	1.4	1.6
2. Carry-In Orders	134.6	191.2	191.1	164.5
3. Total Gross Orders (available funding)	634.6	397.7	366.5	367.8
4. Carry-Out Orders	191.2	191.1	164.5	161.0
Change in Backlog (carry-out less carry-in)	56.7	(0.1)	(26.7)	(3.5)
5. Total Gross Sales	443.4	206.5	202.0	206.8

Summary of Price, Program and Other Changes (Operating Budget)
Department of the Navy
INFORMATION SERVICES
February 1995
($ in Thousands)

	Cost of Operations FY 1994	Price Growth	Program & Other Changes	Cost of Operations FY 1995	Price Growth	Program & Other Changes	Cost of Operations FY 1996	Price Growth	Program & Other Changes	Cost of Operations FY 1997
Military Personnel Compensation	7,098	200	4,601	11,899	128	(6,914)	5,113	264	(155)	5,222
Civilian Personnel Compensation	158,340	2,733	(38,983)	122,090	2,668	(794)	123,964	3,428	(114)	127,278
Travel	4,248	34	(1,717)	2,565	25	(159)	2,431	23	(97)	2,357
Material & Supplies - Commercial	70,503	1,974	(55,900)	16,577	497	599	17,673	530	(1,546)	16,657
Material & Supplies - from DBOF	7,498	951	(6,430)	2,019	(278)	398	2,139	188	(372)	1,955
Other Intrafund (DBOF) Purchases	42,554	612	(29,346)	13,820	(898)	1,338	14,260	(136)	536	14,660
Transportation	265	7	(75)	197	10	(7)	200	6	(3)	203
Capital Investment Depreciation	9,409	0	(7,528)	1,881	0	65	1,946	0	67	2,013
Other Purchases	130,794	3,663	(98,892)	35,565	1,067	4,115	40,747	1,222	(4,843)	37,126
Total Operating Budget *	430,709	10,174	(234,270)	206,613	3,219	(1,359)	208,473	5,525	(6,527)	207,471

*Includes Reimbursements

000711

Changes in the Cost of Operations
INFORMATION SERVICES
FEBRUARY 1995
$ in Millions

		Expenses
1. FY 1994 Actual		430.7
2. FY 1995 Estimate in President's Budget		232.2
3. DON Productivity Initiative		-1.1
4. Pricing Adjustments		0.9
a. FY 1995 pay adjustment	0.9	
5. Program Changes		-27.9
a. Decrease in FMSO budget to match anticipated workload	-17.6	
b. Decrease in NCTS workload	-9.7	
c. Transfer of NAVDAF Lemoore out of DBOF to PACFLT	-0.6	
6. Other Changes		2.5
a. Additional purchases from Public Works Centers & DFAS	2.5	
7. FY 1995 Current Estimate		206.6
8. Pricing Adjustments		3.2
a. Annualization of prior year pay raise	0.6	
b. FY 1996 pay raise	2.2	
c. Materials & Supplies - DBOF	-0.3	
d. Materials & Supplies - Commercial	0.5	
e. Industrial Purchases	-0.9	
f. Other purchases	1.1	
9. DON Productivity Initiative		-1.0
10. Program Changes		-4.1
a. Reduction of 138 military workyears at NCTSs	-6.8	
b. Increase in workload at NCTS Jacksonville	3.4	
c. Reduction at FMSO for UADPS-SP workload	-0.7	
11. Other Changes		3.8
a. Additional cost for rent and utilities & services from DFAS	3.7	
b. Depreciation	0.1	
12. FY 1996 Estimate		208.5
13. Pricing Adjustments		5.5
a. Annualization of prior year pay raise	0.8	
b. FY 1997 pay raise	2.9	
c. Materials & Supplies - DBOF	0.2	
d. Materials & Supplies - Commercial	0.5	
e. Industrial Purchases	-0.1	
f. Other purchases	1.2	
14. Program Changes		-6.6
a. Capitalization of DPI to DISA	-6.6	
15. Other Changes		0.1
Depreciation	0.1	
16. FY 1997 Estimate		207.5

BUSINESS AREA CAPITAL BUDGET SUMMARY
Department of the Navy
Information Services
($ in Millions)

Item Description	FY 1994 Quant	FY 1994 Total Cost	FY 1995 Quant	FY 1995 Total Cost	FY 1996 Quant	FY 1996 Total Cost	FY 1997 Quant	FY 1997 Total Cost
2a. ADP Equipment and Telecommunications (>$100,000)								
Replacement		0.7						
New Mission		0.55		0.256				
Subtotal ADP Equipment (>$100,000)		1.25		0.256		0		0
2b. ADP Equipment and Telecommunications (>$50,000<$100,000)								
Replacement		0.271		0.5		0.9		0.85
New Mission		0.04						
Subtotal ADP Equipment (>$50,000<$100,000)		0.311		0.5		0.9		0.85
3. Software Development (>$50,000)								
New Mission		0.53		0.4		0.35		0.3
Subtotal Software Development (>$50,000)		0.53		0.4		0.35		0.3
4. Minor Construction (>$50,000<$300,000)								
Replacement		0.05		0.19				
Subtotal Minor Construction (>$50,000<$300,000)		0.05		0.19		0		0
Grand Total Capital Purchase Program		2.141		1.346		1.25		1.15

000713

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION ($ in Millions)										A. Budget Submission FY 1996/1997 PRESIDENT'S		
B. Component/Business Area/Date NAVCOMTELSTAs/Information Services (CDA)/				C. Line No. & Item Description 003 Miscellaneous Equip						D. Activity Identification		
	FY 1994			FY 1995			FY 1996			FY 1997		
Element of Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost
END ITEM									0.400			0.350

Narrative Justification

Equipment such as document scanners, printers, plotters, projection equipment etc. are required to meet mission requirements at various activities.

000714

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION ($ in Millions)										A. Budget Submission FY 1996/1997 PRESIDENT'S		
B. Component/Business Area/Date NAVCOMTELSTAs/Information Services (CDA)/				C. Line No. & Item Description 004 Miscellaneous Software						D. Activity Identification		
	FY 1994			FY 1995			FY 1996			FY 1997		
Element of Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost
END ITEM									0.350			0.300

Narrative Justification

Software to support The Software Process Improvement project is required to improve the processes utilized in the development and maintenance of application software. The Software Process Improvement initiative will improve processes to be in compliance with the Software Engineering Institute's (SEI) Capability Maturity Model (CMM). The software will increase productivity, decrease costs, and increase quality work products.

000715

COMPONENT/BUSINESS AREA/DATE	*11 ITEM DESCRIPTION*
NAVY/INFORMATION SYSTEMS/JANUARY 1995	**FMSO HARDWARE**

ELEMENTS OF COST	FY 1996 QTY	FY 1996 UNIT COST	FY 1996 TOTAL COST	FY 1997 QTY	FY 1997 UNIT COST	FY 1997 TOTAL COST
11 FMSO (Equipment)		0	.500		0	.500

Narrative Justification

FMSO - Funds provide support to the Navy Fleet Material Support Office's (FMSO) Local Area Network (LAN) Plan. As part of the plan, FMSO is upgrading its LAN which will replace obsolete ADP equipment in order to provide an environment for client/server development. A variety of PC hardware platforms currently exist in FMSO which prevents deployment of the development tools needed to maintain its competitiveness. Upgrading and standardizing hardware infrastructure will allow FMSO to use the LAN to deploy the latest software products.

FY 1995 CAPITAL PROGRAM RECONCILIATION

BUSINESS AREA: INFORMATION SYSTEMS

There are two significant changes since the FY 1995 President's Budget:

(1) Substitution: A $190,000 minor construction project has been substituted for a portion of the Miscellaneous Equipment in order to replace steel fuel tanks with fiberglass at the Pensacola site to meet environmental compliance regulations.

(2) New Project: A $500,000 Local Area Network upgrade has been added to the capital program. the upgrade is at the Fleet Material Support Office in Philadelphia and is required to provide for client/server development and the standardization of software usage. This field site had no capital program for FY 1995 included in the President's Budget. Funding was provided via realignment from other business areas within Department of the Navy.

007217

DEPARTMENT OF THE NAVY
DEFENSE PRINTING SERVICE
NARRATIVE SUMMARY

BUSINESS AREA DESCRIPTION: The Defense Printing Service (DPS) is responsible for the Department of Defense (DOD) printing program and document automation encompassing value-added conversion, electronic storage, and output and distribution of hardcopy and digital information. DPS is the single manager for all DOD printing and duplicating whether produced in-house or produced through the Government Printing Office (GPO). The Joint Committee on Printing (JCP), Congress of the United States, exercises oversight of all federal printing including the DPS in-house printing capability. All DOD printing requirements are forwarded to DPS to assure compliance with DOD Directives and with the Federal Printing Program.

DPS manages a worldwide printing, duplicating, and document automation production and procurement network. At the end of FY 1994 it was comprised of a headquarters element located on the Washington Navy Yard, 82 major field locations and 177 smaller reprographics facilities. Approximately 2,400 civilian personnel currently support the DPS mission in a variety of disciplines.

OUTPUTS: Besides traditional offset printing and duplicating production, DPS provides electronic scanning, storage, output and distribution, reproduction, micrographics, automated publishing, copier management, and contract printing.

CUSTOMERS: DPS's primary customers are Army (39%), Navy (32%), Air Force (17%), and other Defense agencies (12%).

SIGNIFICANT CHANGES: DPS completed a core capacity analysis which concluded that only classified data, customer sensitive documents, networked digital information conversion, storage, output and distribution, and military specific program management functions should remain within DPS. To reach this core capacity, a significant rightsizing effort is underway with a corresponding increase in the outsourcing of traditional printing and duplicating.. In addition, the remaining core operations are being automated to achieve electronic input, storage, output, and distribution. Finally, DPS is a reinvention laboratory under the auspices of the Defense Performance Review.

BUDGET ANALYSIS: DPS has Net Operating Result (NOR) objectives of $45.3 million in FY 1995, -$8.2 million in FY 1996, and $0 (breakeven) in FY 1997. The FY 1995 composite rate increased 16%over FY 1994, the majority of which is required to finance Voluntary Early Retirement Authority/Separation Incentive Program costs in the business area (vice mission funded), finance base operating support costs via rates vice partial direct funds, accommodate normal escalation, and recover prior year operating losses. DPS uses multiple subsidiary rates to bill the customers

for products and services rendered.

In-house workload in the offset press and reproduction areas will decrease through additional outsourcing and conversion of paper products to digital, while electronic impressions, automated publishing and outsourcing should trend upward for the next several years. The workload trend in micrographics and other production is expected to remain relatively flat. Manpower will decrease significantly through the budget years as DPS rightsizes to its core capacity of approximately 1,700 civilians at approximately 220 locations by FY 1997. Specifically, personnel end strength decreased from approximately 2,700 to under 2,400 by the end of FY 1994. Budgeted end strength is 2,194, 1,994, and 1,695 for FY 1995, FY 1996, and FY 1997, respectively.

PRODUCTIVITY INITIATIVES/COST REDUCTIONS: This submission reflects consolidated DoD operations in each fiscal year, and incorporates anticipated productivity improvements, costs savings from capital investments, consolidation actions and infrastructure reductions. These initiatives have increased production labor efficiency from 98.0% in FY 1993 to 102.1% in FY 1994 with a current plan to increase it to 108.0% by FY 1997. Since inception on 6 April 1992, DPS has eliminated over 1,400 personnel billets, closed over 80 facilities, vacated 350,000 square feet of space, eliminated over 2,800 pieces of production equipment, and increased outsourcing by 15% of total sales. By the end of FY 1997, DPS plans to reduce personnel by another 700 and close an additional 44 facilities.

UNIT COSTS: DPS has participated with the Office of the Secretary of Defense Unit Cost Working Group to develop comprehensive and relevant unit cost measures. Beginning in FY 1995 DPS will use three measurable outputs and five unmeasurable outputs to track unit costs. The measurable outputs consist of offset printing units, electronic impressions and running feet of reproduction. Unmeasurable outputs will be tracked in total dollars and consist of micrographics, automated publishing, other production, copier program, and contract printing. DPS restructured its pricing manual to simplify the process of computing the unit cost measures and is developing an automated monthly unit cost report from the automated accounting system.

DEPARTMENT OF THE NAVY
DEFENSE PRINTING SERVICE
REVENUE AND EXPENSES
(Dollars in Millions)

	FY 1994	FY 1995	FY 1996	FY 1997
Revenue:				
Gross Sales	397.8	457.3	402.4	411.7
Operations	391.4	450.1	393.6	402.1
Capital Surcharge	0.0			
Depreciation except Maj Const	6.2	7.2	8.8	9.6
Major Construction Depreciation	0.2	0.0	0.0	0.0
Other Income	0.0	0.0	0.0	0.0
Refunds/Discounts (-)	0.0	0.0	0.0	0.0
Total Income	**397.8**	**457.3**	**402.4**	**411.7**
Expenses:				
Cost of Materiel Sold from Inventory	0.0	0.0	0.0	0.0
Negotiated Purchases from Customers	0.0	0.0	0.0	0.0
Transportation	1.9	1.2	1.2	1.4
Salaries and Wages:				
Military Personnel	0.0	0.0	0.0	0.0
Civilian Personnel	106.0	88.9	84.5	76.7
Materials, Supplies and				
Parts used in Operations	34.9	32.4	31.7	32.7
Facility Repair Charge	0.7	0.8	0.7	0.7
Depreciation - Capital	6.3	7.2	8.8	9.6
Contracted Engineering Services	0.0	0.0	0.0	0.0
Lease Costs	43.5	43.0	40.0	41.3
Purchased Utilities	3.6	3.7	3.6	3.7
Purchased Communications	1.2	1.2	1.2	1.2
Equipment Maintenance	29.7	27.5	26.3	27.1
Fuel	0.0	0.0	0.0	0.0
Other Expenses	185.2	206.1	212.6	217.3
Total Expenses	**413.0**	**412.0**	**410.6**	**411.7**
Operating Result	(15.2)	45.3	(8.2)	0.0
Less Capital Surchg Reservation	0.0	0.0	0.0	0.0
Plus Appropriations Affecting NOR/AOR	0.0	0.0	0.0	0.0
Other Changes Affecting NOR/AOR	7.2	0.0	0.0	0.0
Net Operating Result	(8.0)	45.3	(8.2)	0.0
Prior Year AOR	(29.1)	(37.1)	8.2	0.0
Accumulated Operating Result	(37.1)	8.2	(0.0)	0.0

DEPARTMENT OF THE NAVY
DEFENSE PRINTING SERVICE
SOURCE OF REVENUE
(Dollars in Millions)

	FY 1994	FY 1995	FY 1996	FY 1997
1. New Orders	376.7	464.9	397.1	412.7
a. Orders from DoD Components	266.2	331.8	283.7	294.8
Department of the Navy	92.6	106.4	92.7	96.6
Operations and Maintenance, Navy	63.6	69.7	61.7	64.0
Operations and Maintenance, Marine Corps	10.5	14.2	12.0	12.6
O&M, Navy Reserve	3.0	3.7	3.1	3.3
O&M, Marine Corps Reserve	0.9	1.0	0.9	0.9
Aircraft Procurement, Navy	3.5	3.9	3.3	3.5
Weapons Procurement, Navy	0.0	0.0	0.0	0.0
Shipbuilding & Conversion, Navy	2.7	2.4	2.1	2.2
Other Procurement, Navy	0.3	0.7	0.6	0.6
Procurement, Marine Corps	0.0	0.0	0.0	0.0
Family Housing, Navy and Marine Corps	0.0	0.0	0.0	0.0
Research, Development, Test & Eval, Navy	0.7	1.0	0.8	0.9
Military Construction, Navy	0.3	0.3	0.2	0.2
Other Navy Appropriations	7.1	9.4	7.9	8.3
Other Marine Corps Appropriations	0.0	0.1	0.1	0.1
Department of the Army	97.4	128.7	109.1	113.3
Army Operation & Maintenance Accounts	82.2	109.1	92.6	96.1
Army Res, Dev, Test & Eval Accounts	4.3	5.6	4.7	4.9
Army Procurement Accounts	0.4	0.3	0.2	0.2
Army Other	10.5	13.7	11.6	12.1
Department of the Air Force	43.8	57.0	48.4	50.2
Air Force Operation & Maintenance Accounts	35.2	45.9	39.1	40.5
Air Force Res, Dev, Test & Eval Accounts	2.4	3.3	2.8	2.9
Air Force Procurement Accounts	0.0	0.0	0.0	0.0
Air Force Other	6.2	7.8	6.5	6.8
DoD Appropriated Accounts	32.4	39.7	33.5	34.7
Base Closure and Realignment	0.0	0.0	0.0	0.0
Operation & Maintenance Accounts	15.1	22.8	19.2	19.8
Res, Dev, Test & Eval Accounts	0.2	0.1	0.1	0.1
Procurement Accounts	0.3	0.1	0.1	0.1
DoD Other	16.8	16.7	14.1	14.7
b. Orders from DBOF Business Areas	87.4	107.5	91.6	95.3
c. Total DoD	353.6	439.3	375.3	390.1
d. Other Orders	23.1	25.6	21.8	22.6
Other Federal Agencies	21.6	23.7	19.9	20.9
Trust Funds (including FMS)	0.0	0.0	0.0	0.0
Non Federal Agencies	1.5	1.9	1.9	1.7
2. Carry-In Orders	48.4	27.3	34.9	29.6
3. Total Gross Orders (available funding)	425.1	492.2	432.0	442.3
4. Carry-Out Orders	27.3	34.9	29.6	30.7
Change in Backlog (carry-out less carry-in)	(21.1)	7.6	(5.3)	1.1
5. Total Gross Sales	397.8	457.3	402.4	411.6

Department of the Navy
Defense Printing Service
Summary of Price, Program and Other Changes (Operating Budget)
(Dollars in Thousands)

	Cost of Operations FY 1994	Price Growth	Program & Other Changes	Cost of Operations FY 1995	Price Growth	Program & Other Changes	Cost of Operations FY 1996	Price Growth	Program & Other Changes	Cost of Operations FY 1997
Military Personnel Compensation	(10)	0	10	0	0	0	0	0	0	0
Civilian Personnel Compensation	106,045	1,685	(18,815)	88,915	2,009	(6,454)	84,470	1,961	(9,743)	76,688
Travel	618	9	(187)	440	7	(3)	444	7	0	451
Material & Supplies - Commercial	21,894	613	(2,511)	19,996	600	(989)	19,607	588	218	20,413
Material & Supplies - from DBOF	12,981	767	(1,361)	12,387	(212)	(51)	12,124	534	(436)	12,222
Other Intrafund (DBOF) Purchases	286	43	386	715	(99)	77	693	36	(14)	715
Transportation	1,285	36	(486)	835	42	(49)	828	25	0	853
Capital Investment Depreciation	6,249	0	915	7,164	0	1,665	8,829	0	765	9,594
Other Purchases	263,618	7,381	10,596	281,595	8,448	(6,438)	283,605	8,508	(1,385)	290,728
Total Operating Budget	**412,966**	**10,534**	**(11,453)**	**412,047**	**10,795**	**(12,242)**	**410,600**	**11,659**	**(10,595)**	**411,664**

22000

DEPARTMENT OF THE NAVY
DEFENSE PRINTING SERVICE
CHANGES IN COST OF OPERATIONS
(Dollars in Millions)

	Costs
FY 1994 Current Estimate	**$413.0**
FY 1995 Estimate in President's Budget	$319.4
Estimated Impact in FY 1995 of FY 1994 Experience:	
a. Workload increases	93.8
Productivity Initiatives and Other Efficiencies:	
a. SECNAV Overhead Efficiencies	(1.2)
FY 1995 Current Estimate	**$412.0**
Pricing Adjustments:	
a. Annualization of FY 1995 Pay Raise	0.7
b. FY 1996 Pay Raise	
Civilian Personnel	1.3
Military Personnel	0.0
c. DBOF Price Changes	(0.5)
d. General Purchase Inflation	9.4
Productivity Initiatives and Other Efficiencies:	
a. SECNAV Overhead Efficiencies	(1.2)
b. Core Capacity Downsizing	(6.6)
Program Changes:	
a. Offset Production/Reproduction	(6.1)
Other Changes:	
a. Depreciation	1.6
FY 1996 Estimate	**$410.6**
Pricing Adjustments:	
a. Annualization of FY 1996 Pay Raise	0.6
b. FY 1997 Pay Raise	
Civilian Personnel	1.4
Military Personnel	0.0
c. DBOF Price Changes	0.3
d. General Purchase Inflation	9.4
e. Other Price Changes	0.0
Productivity Initiatives and Other Efficiencies:	

a. Core Capacity Downsizing	(5.6)
Program Changes:	
a. Offset Production/Reproduction	(4.9)
Other Changes	(0.1)
FY 1997 Estimate	**$411.7**

DEPARTMENT OF THE NAVY
DEFENSE PRINTING SERVICE
CAPITAL BUDGET SUMMARY
(DOLLARS IN MILLIONS)

Line Number	Item Description	FY 1994		FY 1995		FY 1996		FY 1997	
		Quantity	Total Cost	Quantity	Total Cost	Quantity	Total Cost	Quantity	Total Cost
	Non Automated Data Processing Equipment (>$50,000<$500,000)								
0004	Production Equipment (Productivity)		$11.1		$7.1		$14.4		$6.4
	Subtotal Non Automated Data Processing Equipment (>$50,000<$500,000)		$11.1		$7.1		$14.4		$6.4
0032	Minor Construction (>$50,000<$100,000)								
	Minor Construction		$0.5		$0.6		$0.6		$0.6
	Subtotal Minor Construction (>$50,000<$100,000)		$0.5		$0.6		$0.6		$0.6
	Grand Total Capital Purchases Program		$11.6		$7.7		$15.0		$7.0

522000

CAPITAL PURCHASES JUSTIFICATION
DEFENSE PRINTING SERVICE
(DOLLARS IN MILLIONS)

0004

ELEMENT OF COST	FY 1994			FY 1995			FY 1996			FY 1997		
	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost
Production Equipment (Productivity)							VAR		$14.4	VAR		$6.4
TOTAL									$14.4			$6.4

Narrative Justification: This request represents production equipment required to replace worn out or obsolete equipment currently in use in Defense Printing Service (DPS) components and implements Print On Demand initiatives. Replacement production equipment was selected to increase operational productivity and efficiency and provide state-of-the-art service to DPS components. High-speed and ultra high-speed duplicators, production publishers,print on demand systems and electronic printing systems will be purchased with these Capital Purchase Program funds. The new equipment will specifically provide increased production speeds and improved printer resolutions; on-line/ automated production of multiple traditional printing processes; electronic storage of data; reproduction from multiple sources (paper, floppy disk, network, modem); other technological improvements and labor saving capabilities. The above equipment cost is $6.4M in both FY 1996 and FY 1997. In FY 1995, the Navy's Capital Purchase Program authority was increased by $2.0 M and in FY 1996 by $8M dollars for expansion of Print On Demand publishing systems per FY 1995 Congressional action. Much of FY 1995 will be devoted to site visits and evaluation. The requirement definition, system description development, and purchase of equipment is estimated at $2.0M, during the fourth quarter of FY 1995. The remaining sites will have their equipment installed during FY 1996, at a total cost of $8.0 million.

000726

CAPITAL PURCHASES JUSTIFICATION
DEFENSE PRINTING SERVICE
(DOLLARS IN MILLIONS)

0032

ELEMENT OF COST	FY 1994			FY 1995			FY 1996			FY 1997		
	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost
Minor Construction							VAR		$0.6	VAR		$0.6
TOTAL									$0.6			$0.6

Narrative Justification: This represents numerous minor construction projects at the various Defense Printing Service (DPS) facilities/sites. Many of these sites acquired through Defense Management Report Decision (DMRD) 998 required upgraded safety standards. Therefore, minor construction projects are requested to bring these facilities up to standard. Additionally, site alterations are required to accommodate mission changes, space requirements, and quality of life issues at specific DPS facilities. Projects include moving printing plants and duplicating facilities to new locations, reconfiguring plant and office layouts, providing increased security, improving heating/ventilation/cooling and other projects that improve efficiency/productivity.

000727

FY 1995 CAPITAL PROGRAM RECONCILIATION

BUSINESS AREA: DEFENSE PRINTING SERVICE

There are no significant changes in the FY 1995 Capital Program since the FY 1995 President's Budget submission.

822000

DEFENSE BUSINESS OPERATIONS FUND
NAVY PUBLIC WORKS CENTERS
BASE SUPPORT

SECONDARY BUSINESS AREA FUNCTION: The Naval Facilities Engineering Command's Public Works Centers (PWCs) provide utilities services, facilities maintenance, family housing services, transportation support, engineering services and shore facilities planning support required by operating forces and other activities.

Our mission is to provide our customers with the BEST public works service to meet their diverse needs.

BUSINESS AREA COMPOSITION:

ACTIVITY	LOCATION
PWC Great Lakes	Great Lakes, Illinois
PWC Guam	Agana, Guam, Marianas Islands
PWC Jacksonville	Jacksonville, Florida
PWC Norfolk	Norfolk, Virginia
PWC Pearl Harbor	Pearl Harbor, Hawaii
PWC Pensacola	Pensacola, Florida
PWC San Diego	San Diego, California
PWC San Francisco Bay	Oakland, California
PWC Washington	Washington, DC
PWC Yokosuka	Yokosuka, Japan

BUDGET HIGHLIGHTS:

BUSINESS PLAN:

This document is being presented as a Public Works Center Corporate Business Plan. It recognizes the changes confronting us, and reaffirms our dedication to providing continuous high quality services to each customer.

Although we are participating in several studies with our customer base for additional PWC support sites, expansions are not included in this budget unless specifically mentioned. Beginning in FY 1996, for example, all telephone services will be transferred to Naval Computer & Telecommunications Command. These services will then be mission funded in the Operations and Maintenance, Navy account.

LONG-RANGE STRATEGIC PLAN:

The long range strategic plan developed by the PWC Corporate Steering Group focuses on our customers and the way we do business. Although the plan and milestones are ambitious and challenging, we accept the challenges and will transform our organization and processes in order to remain a viable source of

support to our customers. Execution of our plan will enable us to deliver quality services at a reduced customer price. Practicing the principles of Total Quality Leadership, the PWCs strive for continuous improvement; base decisions on facts, not intuition or opinions; focus on customers' requirements; use performance indicators to measure work processes; and empower our employees.

We have chosen six strategic actions for specific emphasis:

-- Reduce cost of PWC products and services.

-- Develop and implement a consistent benchmarking approach to reduce cost and improve cycle time.

-- Develop processes to ensure timely delivery of specific work to meet customers' requirements and expectations.

-- Develop customer friendly billing documents and improve the funds receipt and billing process to produce them.

-- Institute executive level forums with corporate customers, and with Washington stakeholders, within which we can discuss strategic issues related to PWC products and policies.

-- Execute our information systems strategic plan.

CAPITAL BUDGET PROGRAM AUTHORITY:

The capital portion of this budget is designed to achieve economies, reduce risks, ensure that the PWCs meet regulatory requirements, and achieve improvements in reliability and quality. The total proposed investment program is $25.8 million and $24.8 million for FYs 1996 and 1997, respectively.

Investment items are approved by PWC Commanding Officers and have tracked to annual operational savings of 16%. These savings have been incorporated within the budget. Prioritization of these investment items is based on the following order of priority; environmental, regulatory compliance, safety and health, and operational requirement.

Congressional restrictions on the purchase of right-hand drive vehicles continues to be a source of serious concern to the Department. A complete discussion can be found below.

BASE REALIGNMENT AND CLOSURE (BRAC):

This budget reflects workload and personnel adjustments made on the approved Base Realignment and Closure Commission recommendations. Direct costs associated with closure to be paid

by BRAC funding are included as direct customer costs, and are not included in the rate calculations.

The most dramatic impact can be seen at PWC San Francisco Bay, which is scheduled for closure in FY 1998. Workload has been reduced each year commensurate with the customer closure plan for San Francisco Bay. Although minor losses in FY 1994 resulted from reduced workload, rates thereafter are set for gains consistent with reduced workload and accumulated operating result recovery. PWC San Francisco Bay has an aggressive plan to reduce costs. Since capital assets will not be replaced at PWC San Francisco Bay, depreciation has been omitted after FY 1994.

Niagara Housing Complex is closing at the end of FY 1995. This complex has 111 housing units and is serviced by PWC Great Lakes. Three end strength were reduced from PWC Great Lakes personnel numbers in FY 1995. The cost and revenue impact is negligible.

PWC Great Lakes staffing and workload have been increased to account for Naval Training Center consolidation at Great Lakes, and caretaker maintenance at Fort Sheridan. In addition, PWC Great Lakes has been assigned operational responsibility for long term family housing assets at Mitchel Field and Manor in Long Island, New York.

The Naval Aviation Depot is closing in Pensacola; however, the Chief of Naval Training is consolidating activities in that area. Utilities usage is expected to be offset by maintenance activities in revenue projections for PWC Pensacola.

PWC San Diego and PWC Norfolk are also facing transitions. Although Navy personnel are vacating the San Diego Naval Training Center, Miramar Naval Air Station, and the Norfolk Naval Aviation Depot, other activities are scheduled to relocate into these areas. Maintenance requirements are expected to be immediate, and workload considerations have been offset.

The final BRAC impact included in this budget is increased orders from the Naval Sea Systems Command as a result of their Headquarters move to White Oak. PWC Washington serves the Naval Surface Warfare Center, Dahlgren Division, White Oak Detachment, which has experienced a reduction in the interim while awaiting the arrival of NAVSEA Headquarters.

OVERSEAS LOCATION IMPACTS:

We have two Public Works Centers in overseas locations. Because of local economic impacts, special situations arise. The Government of Japan (GOJ) is increasing its host nation support by augmenting its share of payment for Foreign National Indirect Hire (FNIH) personnel and utility services. Support is increasing by 25% per year, until full payment is achieved for

regular workyears within GOJ funding limitations. PWC Yokosuka will continue to pay for overtime requirements and requirements beyond the funding limitations.

Through FY 1995, PWC utility rates reflect only the PWC portion of the GOJ rebate with local commands receiving a direct rebate on their total utility bills. This budget reflects a change beginning in FY 1996. PWC Yokosuka will retain the utility rebate from the GOJ, and reflect lower utility rates for its customers. This change has been coordinated with local commands.

To control the total host nation support, the GOJ has placed a ceiling on the number of personnel that may be retained. PWC Yokosuka has reduced FNIH employment levels to comply. To compensate for the reduced employment level, we are contracting for a greater portion of services.

PWC Guam will transfer Navy power transmission to the Guam Power Authority in FY 1996, and will purchase power for customers. This transfer agreement has been finalized after many years of negotiation, and involves assets of $133 million, and 82 workyears of support.

TRANSPORTATION FLEET MANAGEMENT:

The Department of Defense Appropriations Act for FY 1994 included $1.5 million for natural gas vehicle infrastructure planning and demonstration. The Navy portion of these funds was $750,000; of which, PWC Washington received $100,000 to install cascade storage facility with multiple slow fill service drops at their existing compressed natural gas fueling station. As with other "pilot" programs, we have not included depreciation for this project in the Business Plan.

In addition, the Department of Energy received special funding authority from Congress for alternative fuel vehicle programs. They have funded conversion for selected vehicles purchased by PWC San Diego to assist the Navy in meeting its clean fuel acquisition rate by FY 1999. This budget assumes that special Congressional interest and funding will continue for alternative fuel vehicles and stations until natural gas vehicles become competitively priced in the market. Without this subsidy, PWC vehicle rates would lead to unwise environmental choices by customers.

10 U.S.C. 2253/(a)/(2) states that the Secretary of Defense and the Secretary of each military department may purchase right-hand drive vehicles (sedans and station wagons) at a cost of not more than $12,000 each. This cost has not been increased since 1981. Escalation has not been considered, nor have the exchange rates. It is currently impossible to purchase a right-hand vehicle for $12,000. Using left-hand drive vehicles in right-hand drive

countries is a dangerous and expensive practice. Maintenance costs for existing vehicles are soaring, and the costs associated with short-term leases are prohibitive. If this situation continues, the unit costs for rental services will increase to an unaffordable rate unless 10 U.S.C. 2253/(a)/(2) is revised. A recommended legislative change is proposed with this budget.

PWCs are committed to reducing unit costs in all product/service areas in line with the DMRD process and Performance Reviews, but barriers to effective and efficient business practices in the PWC transportation areas impede progress.

PRODUCTIVITY AND ENHANCED OPERATIONS:

In establishing the Defense Business Operations Fund, DMRD 971 levied an annual 1% cost-reducing productivity improvement on all DBOF business areas. The Public Works Centers have been able to surpass this level of productivity through gains made through consolidation, process improvements, benchmarking, competitive practices, and partnering efforts. We have been actively involved in the Department's DBOF Cost Reduction Committee for Installation Infrastructure, and have provided specific methodologies for PWC gains with other service representatives.

In addition to the productivity gains reflected in our rate schedules, other significant cost saving benefits accrue directly to our customer base. Several areas benefiting cost reduction efforts are competition, partnering, consolidation, and process improvement.

COMPETITION -- Service decisions based on total value. Value includes quality, quantity, and timeliness factors.

Our competitive outsourcing efforts include contracts and materials, and accounts for 60% of our costs. In addition, another $101 million is outsourced using direct cite of customer funds. Direct cite workload is not included in PWC revenues or costs, although we activate the contracts.

Rates for labor and other product/service provision are constantly benchmarked against commercial sources. When commercial sources can offer superior value, the PWCs discontinue in-house performance.

PARTNERING -- Working directly with suppliers, customers, and other PWCs to lower overall cost.

Supplier partnering efforts include working with the housing contractor in Pearl Harbor to improve quality and thereby reduce rework; awarding contracts that combine design and construction of facilities; and encouraging waste disposal agents to find less expensive disposal alternatives to normal landfill operations.

PWCs have also been working closely with their customer base to search and implement energy conservation measures based on life-cycle cost in their facilities; self-help assistance; long-range maintenance planning; encouraging recycling efforts and then recommending alternative pickup schedules for the remaining solid waste; offering evening fuel dispensing at parking site from fuel vehicle; initiating 24 hour automated fuel dispensing; recommending avoidance methodologies on electrical peak demand charges; performing vehicle use evaluations to reduce rental; and assessing risk factors in reducing recurring maintenance for facilities and equipment.

The PWC community is also participating in the Fleet Maintenance Concept. We are partnering with study teams in Norfolk and San Diego, and participating on the CNO's Maintenance Support Quality Management Board. The purpose of the study groups is to eliminate duplication of back-shops between PWCs, Shipyards, and Naval Aviation Depots.

PWCs routinely pilot corporate "good ideas" at a single PWC to reduce risk. For example, PWC Great Lakes has just become a landlord. They accepted a building on a closing facility. They will rent it to tenants at a single cost per square foot, which includes maintenance and utilities. This pilot will help us weigh the risk of potentially taking responsibility for properties that we cannot rent to customers, versus the possible long term gains associated with appropriate investment in Navy assets.

CONSOLIDATION -- Savings through economies of scale.

DMRD 967 expanded existing PWCs and directed the establishment of new ones. Savings are being achieved through consolidation of maintenance contracts, elevator inspection contracts, and A&E contracts. In addition, construction projects for individual site hazardous waste storage facilities were canceled because of excess capacity at other consolidated sites. Transportation assets have been pooled to increase rental availability with fewer leasing requirements.

The magnitude of the utility systems allows other economies. Rate intervention and purchase agreement negotiations result in lower unit costs. We have conversion capability for use of alternate fuels for the same boilers; therefore, we can purchase the one with the least overall cost by season and availability.

PROCESS IMPROVEMENT -- We are changing the way we do business through both breakthrough methodologies and incremental improvements.

In process review, the PWCs have employed process action teams to accomplish service and cost improvements. They flow chart targeted processes, collect internal and external data, study alternatives, and make recommendations for improvements.

To improve the responsiveness in completing large maintenance work projects, Navy PWCs are establishing inter-department, functional teams consisting of stakeholders from the maintenance shops, contracts, engineering and customer services departments. This team is the central induction point and is empowered to make "point of sale" decisions on completion methodologies. With customer input, the team confirms understanding of customer requirements, and selects the best method of project completion -- using in-house maintenance personnel, job order contracting, multi-trade contracting, small purchase contracting, indefinite quantity contracts, or performance contracting.

We have other gains for our customers in various product/service areas:

-- At PWC Pensacola, the waste water treatment plant generates hazardous material sludge that is expensive to handle and store. The operators looked for ways to reduce the amount of sludge generated, and were successful in reducing costs.

-- Several PWCs have performed risk assessments on recurring maintenance for customer facilities and equipment. The amount of maintenance has been adjusted in many cases, leading to overall customer savings.

-- All PWCs have engaged in overhead studies. Productivity ratios have been increased, thereby lowering the cost of PWC products and services.

-- A high voltage team recently completed installation of a 12 kilovolt electric line that will allow utilities to buy power from a variety of sources, thereby offering the customer the lowest rate possible.

-- PWC Pensacola instituted an industry safety program that has already resulted in more than 800,000 hours without a lost time accident in the maintenance department.

-- Three trash collectors from PWC Great Lakes formed a process action team to study trash collection. They collected data on routes and amounts of trash in every dumpster to improve routes and collection schedules.

PWCs have been successful in benchmarking workload accomplished methodologies with industry and other public institutions, and sharing gains made at one PWC with the other nine.

	FY 1994	FY 1995	FY 1996	FY 1997
VOLUME OF BUSINESS:				
Cost of Goods Sold	1,917,142	1,778,825	1,704,340	1,692,568
Net Operating Results	75,153	45,549	<52,172>	-0-
Acc Oper Results (AOR)	6,623	52,172	-0-	-0-
CUSTOMER RATE CHANGES:				
PWC Composite				
East Coast	.4	2.3	<2.9>	.5
West Coast	.4	6.1	<3.8>	2.7
SUMMARY OF PERSONNEL RESOURCES:				
Civilian:				
End Strength	14,652	14,016	13,768	13,442
Workyears	14,096	14,169	13,830	13,477
Military:				
End Strength	112	105	101	97
Workyears	113	105	101	97

HEADQUARTERS COSTS:

The budget reflects PWC headquarters costs of $912, $955, $955, and $955 thousand in FY 1994 through FY 1997, respectively.

DEFENSE BUSINESS OPERATIONS FUND
NAVY PUBLIC WORKS CENTERS
BASE SUPPORT

WORKLOAD:

PRODUCT/SERV	UNIT OF MEASURE	ACTUALS FY94	A-11 FY95	A-11 FY96	A-11 FY97
ELECTRICITY	MWH	4,251,022	4,149,920	4,008,652	3,988,281
POTABLE WATER	KGAL	24,122,726	23,624,001	23,310,358	22,961,740
SALT WATER	KGAL	8,438,885	7,865,964	8,030,094	8,013,674
HEATING	MBTU	235,774	192,400	475,000	518,000
STEAM	MBTU	8,206,889	7,855,165	7,506,589	7,406,426
CLEAN STEAM	MBTU	3,101,570	3,044,486	3,054,404	3,055,261
SEWAGE	KGAL	14,981,957	15,316,313	14,843,419	14,846,095
NATURAL GAS	MBTU	1,992,856	1,938,241	1,810,917	1,644,284
COMPRESSED AIR	KCF	9,638,027	8,894,685	8,661,215	8,674,790
TELEPHONES	LINES	337,794	1,360,574	0	0
SANITATION SERVICES					
REFUSE COLLECT	CUYD	4,400,917	3,485,335	3,465,103	3,622,115
PEST CONTROL	HOURS	102,242	118,456	114,138	112,216
HAZ WASTE I	GAL	766,439	1,040,574	1,026,016	1,004,047
HAZ WASTE II	LBS	13,252,321	12,987,703	12,429,318	12,097,703
ENVIRON ENG	HOURS	87,427	112,716	126,147	129,971
INDUST WASTE	KGAL	198,596	140,271	43,534	43,792
TRANSPORTATION SERVICES					
EQUIP RENTAL	HOURS	22,742,497	24,272,562	23,820,219	23,462,480
VEHICLE OPS	HOURS	780,138	965,919	1,029,050	1,006,229
VEHICLE MAINT	SRO	89,947	121,486	137,111	136,976
MAINTENANCE & REPAIR					
SPECIFICS	JOBS	9,020	8,577	8,543	8,350
MINORS	ITEMS	41,354	21,371	21,122	20,494
EMERGENCY/SERV	CHITS	418,959	358,602	351,063	351,933
RECURRING	ITEMS	121,186	85,998	89,282	88,868
DESIGN					
DESIGN MANAGE	CWE	165,316,542	211,944,953	183,065,714	207,094,334
PWC DESIGN	CWE	168,952,881	154,242,331	181,943,147	176,561,120
PLANNING	HOURS	390,163	381,828	388,153	389,800

CONTRACTING

FSC ADMIN	WIP	223,853,718	264,107,265	264,286,081	271,462,771
FSC INSPECTION	WIP	181,955,608	261,903,493	265,541,200	267,690,254
NON-MCON ADMIN	WIP	121,629,066	87,341,001	116,825,514	120,573,333
NON-MCON INSPEC	WIP	47,915,681	45,641,681	60,133,139	60,795,478

DEFENSE BUSINESS OPERATIONS FUND
NAVY PUBLIC WORKS CENTERS
BASE SUPPORT

UNIT COSTS:

PRODUCT/SERV	UNIT OF MEASURE	ACTUALS FY94	A-11 FY95	A-11 FY96	A-11 FY97
ELECTRICITY	MWH	87.85	90.71	86.86	84.66
POTABLE WATER	KGAL	2.87	2.83	2.43	2.31
SALT WATER	KGAL	0.71	0.62	0.74	0.67
HEATING	MBTU	10.44	9.76	11.69	10.96
STEAM	MBTU	14.65	13.45	14.13	13.76
CLEAN STEAM	MBTU	13.74	16.79	15.95	15.21
SEWAGE	KGAL	4.00	3.81	3.95	3.79
NATURAL GAS	MBTU	6.07	6.25	5.87	6.04
COMPRESSED AIR	KCF	1.06	0.99	1.07	1.21
TELEPHONES	LINES	47.38	37.51	0.00	0.00
SANITATION SERVICES					
REFUSE COLLECT	CUYD	4.38	5.85	5.69	5.60
PEST CONTROL	HOURS	41.99	39.75	41.67	40.40
HAZ WASTE I	GAL	3.54	2.26	2.33	2.28
HAZ WASTE II	LBS	1.71	1.89	1.98	1.94
ENVIRON ENG	HOURS	64.01	60.38	60.80	61.95
INDUST WASTE	KGAL	26.35	35.61	85.93	92.57
TRANSPORTATION SERVICES					
EQUIP RENTAL	HOURS	3.38	2.92	3.38	3.22
VEHICLE OPS	HOURS	47.29	35.51	37.18	38.19
VEHICLE MAINT	SRO	181.88	144.61	134.54	138.84
MAINTENANCE & REPAIR					
SPECIFICS	JOBS	32612.42	27711.16	28261.66	29748.14
MINORS	ITEMS	2803.36	4695.11	4765.65	4892.56
EMERGENCY/SERV	CHITS	147.08	199.84	208.82	214.64
RECURRING	ITEMS	1797.14	2280.58	2244.73	2249.70
DESIGN					
DESIGN MANAGE	CWE	0.0353	0.0308	0.0361	0.0343
PWC DESIGN	CWE	0.0804	0.1046	0.0999	0.1016
PLANNING	HOURS	56.47	48.51	50.51	51.70

CONTRACTING

FSC ADMIN	WIP	0.0754	0.0720	0.0693	0.0721
FSC INSPECTION	WIP	0.0900	0.0657	0.0678	0.0649
NON-MCON ADMIN	WIP	0.0854	0.0718	0.0663	0.0637
NON-MCON INSPEC	WIP	0.0472	0.0622	0.0568	0.0554

DEFENSE BUSINESS OPERATIONS FUND
NAVY PUBLIC WORKS CENTERS
BASE SUPPORT

REVENUE COMPUTED RATE:

PRODUCT/SERV	UNIT OF MEASURE	ACTUALS FY94	A-11 FY95	A-11 FY96	A-11 FY97
ELECTRICITY	MWH	92.04	96.90	85.96	84.66
POTABLE WATER	KGAL	2.47	2.72	2.39	2.31
SALT WATER	KGAL	0.63	0.65	0.64	0.67
HEATING	MBTU	10.32	9.75	11.81	10.96
STEAM	MBTU	14.24	14.21	13.84	13.76
CLEAN STEAM	MBTU	17.15	17.42	15.26	15.21
SEWAGE	KGAL	3.71	3.79	3.60	3.79
NATURAL GAS	MBTU	6.45	6.71	6.22	6.04
COMPRESSED AIR	KCF	1.11	1.19	0.99	1.21
TELEPHONES	LINES	56.78	41.90	0.00	0.00
SANITATION SERVICES					
REFUSE COLLECT	CUYD	4.73	6.16	5.68	5.60
PEST CONTROL	HOURS	38.01	40.20	40.97	40.40
HAZ WASTE I	GAL	4.66	2.60	2.33	2.28
HAZ WASTE II	LBS	1.79	1.91	1.93	1.94
ENVIRON ENG	HOURS	56.33	62.00	60.18	61.95
INDUST WASTE	KGAL	24.10	35.08	83.99	92.57
TRANSPORTATION SERVICES					
EQUIP RENTAL	HOURS	2.83	2.85	2.94	3.22
VEHICLE OPS	HOURS	44.49	37.12	34.74	38.19
VEHICLE MAINT	SRO	178.63	147.59	126.29	138.84
MAINTENANCE & REPAIR					
SPECIFICS	JOBS	33654.12	28082.92	27333.06	29748.14
MINORS	ITEMS	2725.22	4742.83	4610.40	4892.56
EMERGENCY/SERV	CHITS	146.47	199.32	204.30	214.64
RECURRING	ITEMS	1803.26	2279.41	2178.00	2249.70
DESIGN					
DESIGN MANAGE	CWE	0.0405	0.0323	0.04	0.03
PWC DESIGN	CWE	0.0852	0.1095	0.10	0.10
PLANNING	HOURS	57.69	49.24	50.70	51.70

CONTRACTING

FSC ADMIN	WIP	0.0742	0.0769	0.07	0.07
FSC INSPECTION	WIP	0.0712	0.0628	0.07	0.06
NON-MCON ADMIN	WIP	0.0773	0.0706	0.07	0.06
NON-MCON INSPEC	WIP	0.0550	0.0578	0.06	0.06

PERFORMANCE MEASURES
DEFENSE BUSINESS OPERATIONS FUND
NAVY PUBLIC WORKS CENTERS
BASE SUPPORT

Key corporate performance measures for Navy Public Works Centers have been established. The overall goal of the PWC Corporate Steering Group (CSG) was to establish a cadre of measurement devices that would measure products/services to gauge effectiveness, assist in management of the products/services, assure accountability, and assist in making sound budget decisions. In addition to the above, the considerations for indicator changes were that each must be meaningful to the majority of the reporting groups (e.g., PWCs, Naval Facilities Engineering Command, Comptroller of the Navy, and the Office of the Secretary of Defense), controllable by the commodity manager, and already measured through normal reporting process or could be measured without significant additional cost to prevent establishment of a "measurement bureaucracy."

Although unit cost remains the primary efficiency measure, we also track the percentage of total cost that is out-sourced, the greatest growth commodities, the commodities in decline, and operating results when compared to budget.

	FY 1993	FY 1994	FY 1995	FY 1996	FY 1997
Out-sourcing Percentage	57.6	59.9	62.4	60.8	60.1
Net Operating Results ($000)	-25,936	939	45,549	-52,172	0

CUSTOMER SATISFACTION

Customer satisfaction is clearly viewed as the most important PWC product/service indicator since cost, quality, quantity, and timeliness affect the outcome. A customer survey is given annually by each of the PWCs. A five-point scale showing an average index is provided.

The initial customer satisfaction goal is to improve by .1 each year through FY 1997.

	FY 1993	FY 1994	FY 1995	FY 1996	FY 1997
Overall	3.8	3.8	4.0	4.1	4.2
Utilities service	4.0	3.9	4.2	4.3	4.4
Transportation service	3.9	4.0	4.1	4.2	4.3
Contracts	3.6	3.6	3.8	3.9	4.0
Engineering	3.6	3.7	3.8	3.9	4.0
Facilities Maintenance	3.7	3.6	3.9	4.0	4.1

QUALITY

Although customer satisfaction remains the best indicator of overall value which includes quality, other indicators have been established that have immense impact on the productivity of our customer base:

Electricity outage -- number of unplanned interruptions to service.

FY 1993	FY 1994	FY 1995	FY 1996	FY 1997
856	840	773	734	697

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PERFORMANCE MEASURES
DEFENSE BUSINESS OPERATIONS FUND
NAVY PUBLIC WORKS CENTERS
BASE SUPPORT

Transportation availability/utilization -- actual rentals of equipment divided by total possible rental hours.

FY 1993	FY 1994	FY 1995	FY 1996	FY 1997
88%	87%	90%	91%	92%

TIMELINESS

Timeliness indicators are most important in the area of maintenance of real property.

	FY 1993	FY 1994	FY 1995	FY 1996	FY 1997
Time to execute emergency work.	18.4 hours	17.5 hours	16.6 hours	16.0 hours	15.2 hours
Time to execute service work.	11.1 days	10.6 days	10.1 days	9.6 days	9.1 days
Time to execute minor and specific work.	58.0 days	55.1 days	52.3 days	49.7 days	47.2 days

Emergency and service work are small jobs that take less than 16 hours to complete. The indicator is the average (mean) that it takes from the time the customer calls in the order, until the customer signs off on the job as complete.

Minor and specific work are larger scale jobs -- over 16 hours to complete. The indicator is the average (mode) that it takes from the time the order is received and funded, until the customer signs off on the job as complete.

Two other timeliness-base goals for the PWC corporation are in the areas of real property execution. Execution can have significant financial and effectiveness impact on the products/services provided by the PWCs. We track the percentage of PWC plant value spent on MRP.

FY 1993	FY 1994	FY 1995	FY 1996	FY 1997
2.56	2.65	2.18	2.18	2.11

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DEFENSE BUSINESS OPERATIONS FUND
NAVY PUBLIC WORKS CENTERS
BASE SUPPORT

WORKLOAD:

PRODUCT/SERV	UNIT OF MEASURE	ACTUALS FY94	A-11 FY95	A-11 FY96	A-11 FY97
ELECTRICITY	MWH	4,251,022	4,149,920	4,008,652	3,988,281
POTABLE WATER	KGAL	24,122,726	23,624,001	23,310,358	22,961,740
SALT WATER	KGAL	8,438,885	7,865,964	8,030,094	8,013,674
HEATING	MBTU	235,774	192,400	475,000	518,000
STEAM	MBTU	8,206,889	7,855,165	7,506,589	7,406,426
CLEAN STEAM	MBTU	3,101,570	3,044,486	3,054,404	3,055,261
SEWAGE	KGAL	14,981,957	15,316,313	14,843,419	14,846,095
NATURAL GAS	MBTU	1,992,856	1,938,241	1,810,917	1,644,284
COMPRESSED AIR	KCF	9,638,027	8,894,685	8,661,215	8,674,790
TELEPHONES	LINES	337,794	1,360,574	0	0
SANITATION SERVICES					
REFUSE COLLECT	CUYD	4,400,917	3,485,335	3,465,103	3,622,115
PEST CONTROL	HOURS	102,242	118,456	114,138	112,216
HAZ WASTE I	GAL	766,439	1,040,574	1,026,016	1,004,047
HAZ WASTE II	LBS	13,252,321	12,987,703	12,429,318	12,097,703
ENVIRON ENG	HOURS	87,427	112,716	126,147	129,971
INDUST WASTE	KGAL	198,596	140,271	43,534	43,792
TRANSPORTATION SERVICES					
EQUIP RENTAL	HOURS	22,742,497	24,272,562	23,820,219	23,462,480
VEHICLE OPS	HOURS	780,138	965,919	1,029,050	1,006,229
VEHICLE MAINT	SRO	89,947	121,486	137,111	136,976
MAINTENANCE & REPAIR					
SPECIFICS	JOBS	9,020	8,577	8,543	8,350
MINORS	ITEMS	41,354	21,371	21,122	20,494
EMERGENCY/SERV	CHITS	418,959	358,602	351,063	351,933
RECURRING	ITEMS	121,186	85,998	89,282	88,868
DESIGN					
DESIGN MANAGE	CWE	165,316,542	211,944,953	183,065,714	207,094,334
PWC DESIGN	CWE	168,952,881	154,242,331	181,943,147	176,561,120
PLANNING	HOURS	390,163	381,828	388,153	389,800
CONTRACTING					
FSC ADMIN	WIP	223,853,718	264,107,265	264,286,081	271,462,771
FSC INSPECTION	WIP	181,955,608	261,903,493	265,541,200	267,690,254
NON-MCON ADMIN	WIP	121,629,066	87,341,001	116,825,514	120,573,333
NON-MCON INSPEC	WIP	47,915,681	45,641,681	60,133,139	60,795,478

DEFENSE BUSINESS OPERATIONS FUND
NAVY PUBLIC WORKS CENTERS
BASE SUPPORT

UNIT COSTS:

PRODUCT/SERV	UNIT OF MEASURE	ACTUALS FY94	A-11 FY95	A-11 FY96	A-11 FY97
ELECTRICITY	MWH	87.85	90.71	86.86	84.66
POTABLE WATER	KGAL	2.87	2.83	2.43	2.31
SALT WATER	KGAL	0.71	0.62	0.74	0.67
HEATING	MBTU	10.44	9.76	11.69	10.96
STEAM	MBTU	14.65	13.45	14.13	13.76
CLEAN STEAM	MBTU	13.74	16.79	15.95	15.21
SEWAGE	KGAL	4.00	3.81	3.95	3.79
NATURAL GAS	MBTU	6.07	6.25	5.87	6.04
COMPRESSED AIR	KCF	1.06	0.99	1.07	1.21
TELEPHONES	LINES	47.38	37.51	0.00	0.00
SANITATION SERVICES					
REFUSE COLLECT	CUYD	4.38	5.85	5.69	5.60
PEST CONTROL	HOURS	41.99	39.75	41.67	40.40
HAZ WASTE I	GAL	3.54	2.26	2.33	2.28
HAZ WASTE II	LBS	1.71	1.89	1.98	1.94
ENVIRON ENG	HOURS	64.01	60.38	60.80	61.95
INDUST WASTE	KGAL	26.35	35.61	85.93	92.57
TRANSPORTATION SERVICES					
EQUIP RENTAL	HOURS	3.38	2.92	3.38	3.22
VEHICLE OPS	HOURS	47.29	35.51	37.18	38.19
VEHICLE MAINT	SRO	181.88	144.61	134.54	138.84
MAINTENANCE & REPAIR					
SPECIFICS	JOBS	32612.42	27711.16	28261.66	29748.14
MINORS	ITEMS	2803.36	4695.11	4765.65	4892.56
EMERGENCY/SERV	CHITS	147.08	199.84	208.82	214.64
RECURRING	ITEMS	1797.14	2280.58	2244.73	2249.70
DESIGN					
DESIGN MANAGE	CWE	0.0353	0.0308	0.0361	0.0343
PWC DESIGN	CWE	0.0804	0.1046	0.0999	0.1016
PLANNING	HOURS	56.47	48.51	50.51	51.70
CONTRACTING					
FSC ADMIN	WIP	0.0754	0.0720	0.0693	0.0721
FSC INSPECTION	WIP	0.0900	0.0657	0.0678	0.0649
NON-MCON ADMIN	WIP	0.0854	0.0718	0.0663	0.0637
NON-MCON INSPEC	WIP	0.0472	0.0622	0.0568	0.0554

DEFENSE BUSINESS OPERATIONS FUND
NAVY PUBLIC WORKS CENTERS
BASE SUPPORT

REVENUE COMPUTED RATE:

PRODUCT/SERV	UNIT OF MEASURE	ACTUALS FY94	A-11 FY95	A-11 FY96	A-11 FY97
ELECTRICITY	MWH	92.04	96.90	85.96	84.66
POTABLE WATER	KGAL	2.47	2.72	2.39	2.31
SALT WATER	KGAL	0.63	0.65	0.64	0.67
HEATING	MBTU	10.32	9.75	11.81	10.96
STEAM	MBTU	14.24	14.21	13.84	13.76
CLEAN STEAM	MBTU	17.15	17.42	15.26	15.21
SEWAGE	KGAL	3.71	3.79	3.60	3.79
NATURAL GAS	MBTU	6.45	6.71	6.22	6.04
COMPRESSED AIR	KCF	1.11	1.19	0.99	1.21
TELEPHONES	LINES	56.78	41.90	0.00	0.00
SANITATION SERVICES					
REFUSE COLLECT	CUYD	4.73	6.16	5.68	5.60
PEST CONTROL	HOURS	38.01	40.20	40.97	40.40
HAZ WASTE I	GAL	4.66	2.60	2.33	2.28
HAZ WASTE II	LBS	1.79	1.91	1.93	1.94
ENVIRON ENG	HOURS	56.33	62.00	60.18	61.95
INDUST WASTE	KGAL	24.10	35.08	83.99	92.57
TRANSPORTATION SERVICES					
EQUIP RENTAL	HOURS	2.83	2.85	2.94	3.22
VEHICLE OPS	HOURS	44.49	37.12	34.74	38.19
VEHICLE MAINT	SRO	178.63	147.59	126.29	138.84
MAINTENANCE & REPAIR					
SPECIFICS	JOBS	33654.12	28082.92	27333.06	29748.14
MINORS	ITEMS	2725.22	4742.83	4610.40	4892.56
EMERGENCY/SERV	CHITS	146.47	199.32	204.30	214.64
RECURRING	ITEMS	1803.26	2279.41	2178.00	2249.70
DESIGN					
DESIGN MANAGE	CWE	0.0405	0.0323	0.04	0.03
PWC DESIGN	CWE	0.0852	0.1095	0.10	0.10
PLANNING	HOURS	57.69	49.24	50.70	51.70
CONTRACTING					
FSC ADMIN	WIP	0.0742	0.0769	0.07	0.07
FSC INSPECTION	WIP	0.0712	0.0628	0.07	0.06
NON-MCON ADMIN	WIP	0.0773	0.0706	0.07	0.06
NON-MCON INSPEC	WIP	0.0550	0.0578	0.06	0.06

DEFENSE BUSINESS OPERATIONS FUND
DEPARTMENT OF THE NAVY
Public Works Centers
REVENUE AND EXPENSES
(Dollars in Millions)

	FY 1994	FY 1995	FY 1996	FY 1997
Revenue:				
Gross Sales	1,918.1	1,824.4	1,652.2	1,692.6
Operations	1,863.5	1,801.4	1,629.8	1,670.4
Capital Surcharge	0.0	0.0	0.0	0.0
Depreciation except Maj Const	26.7	23.0	22.4	22.2
Major Construction Depreciation	27.9	0.0	0.0	0.0
Other Income	0.0	0.0	0.0	0.0
Refunds/Discounts (-)	0.0	0.0	0.0	0.0
Total Income	**1,918.1**	**1,824.4**	**1,652.2**	**1,692.6**
Expenses:				
Cost of Materiel Sold from Inventory	0.0	0.0	0.0	0.0
Negotiated Purchases from Customers	0.0	0.0	0.0	0.0
Transportation	6.9	5.2	5.2	5.1
Salaries and Wages:				
Military Personnel	7.3	7.3	6.6	6.7
Civilian Personnel	599.8	608.8	613.5	619.4
Materials, Supplies and				
Parts used in Operations	21.3	156.8	165.6	163.7
Facility Repair Charge	211.7	270.4	263.4	255.8
Depreciation - Capital	55.1	23.0	22.4	22.2
Contracted Engineering Services	9.2	14.5	14.1	14.4
Lease Costs	6.4	7.4	6.2	5.2
Purchased Utilities	331.1	346.5	331.9	329.9
Purchased Communications	89.5	56.7	2.3	1.9
Equipment Maintenance	2.4	3.3	3.2	3.1
Fuel	28.5	26.7	26.9	26.7
Other Expenses	547.9	252.4	243.0	238.5
Total Expenses	**1,917.1**	**1,778.8**	**1,704.3**	**1,692.6**
Operating Result	0.9	45.5	(52.2)	0.0
Less Capital Surchg Reservation	0.0	0.0	0.0	0.0
Plus Appropriations Affecting NOR/AOR	0.0	0.0	0.0	0.0
Other Changes Affecting NOR/AOR	74.2	0.0	0.0	0.0
Net Operating Result	75.2	45.5	(52.2)	0.0
Prior Year AOR	(68.5)	6.6	52.2	0.0
Accumulated Operating Result	6.6	52.2	0.0	0.0

BUSINESS AREA ANALYSIS
DEPARTMENT OF THE NAVY
PUBLIC WORKS CENTERS
SOURCE OF REVENUE
(Dollars in Millions)

	FY 1994	FY 1995	FY 1996	FY 1997
1. New Orders	2,067.7	1,800.3	1,634.9	1,677.0
a. Orders from DoD Components	1,516.9	1,324.8	1,234.5	1,279.7
Department of the Navy	1,229.1	1,084.5	1,022.7	1,056.0
Operations and Maintenance, Navy	926.4	806.3	786.1	818.8
Operations and Maintenance, Marine Corps	11.1	12.2	11.2	11.6
O&M, Navy Reserve	11.9	13.4	12.7	12.6
O&M, Marine Corps Reserve	1.0	2.2	2.2	2.2
Aircraft Procurement, Navy	0.5	0.4	0.4	0.4
Weapons Procurement, Navy	0.0	0.0	0.0	0.0
Shipbuilding & Conversion, Navy	1.5	1.9	1.6	1.5
Other Procurement, Navy	5.8	3.0	1.9	2.0
Procurement, Marine Corps	0.0	0.0	0.0	0.0
Family Housing, Navy and Marine Corps	246.4	229.3	193.2	193.2
Research, Development, Test & Eval, Navy	5.6	6.0	6.1	6.2
Military Construction, Navy	10.8	2.0	1.8	1.4
Other Navy Appropriations	7.7	7.5	5.2	5.4
Other Marine Corps Appropriations	0.5	0.5	0.4	0.4
Department of the Army	79.3	73.5	67.3	71.2
Army Operation & Maintenance Accounts	20.7	73.5	67.3	71.2
Army Res, Dev, Test & Eval Accounts	0.0	0.0	0.0	0.0
Army Procurement Accounts	0.7	0.0	0.0	0.0
Army Other	57.8	0.0	0.0	0.0
Department of the Air Force	16.0	20.0	20.0	20.1
Air Force Operation & Maintenance Accounts	15.5	20.0	20.0	20.1
Air Force Res, Dev, Test & Eval Accounts	0.0	0.0	0.0	0.0
Air Force Procurement Accounts	0.0	0.0	0.0	0.0
Air Force Other	0.4	0.0	0.0	0.0
DoD Appropriated Accounts	192.6	146.7	124.5	132.4
Base Closure and Realignment	55.2	16.4	5.8	12.9
Operation & Maintenance Accounts	86.8	35.0	29.7	27.5
Res, Dev, Test & Eval Accounts	0.0	0.0	0.0	0.0
Procurement Accounts	0.1	0.0	0.0	0.0
DoD Other	50.6	95.4	88.9	91.9
b. Orders from DBOF Business Areas	505.3	427.9	357.3	354.6
c. Total DoD	2,022.2	1,752.7	1,591.7	1,634.3
d. Other Orders	45.5	47.6	43.2	42.7
Other Federal Agencies	10.2	18.1	16.6	15.8
Trust Funds (including FMS)	0.6	0.9	0.9	1.0
Non Federal Agencies	34.7	28.6	25.7	26.0
2. Carry-In Orders	465.1	614.7	590.7	573.4
3. Total Gross Orders (available funding)	2,532.8	2,415.0	2,225.6	2,250.4
4. Carry-Out Orders	614.7	590.7	573.4	557.9
Change in Backlog (carry-out less carry-in)	149.6	(24.1)	(17.2)	(15.6)
5. Total Gross Sales	1,918.1	1,824.4	1,652.2	1,692.6

Summary of Price, Program and Other Changes (Operating Budget)
Department of the Navy
Public Works Centers
February 1995
($ in Thousands)

	Cost of Operations FY 1994	Price Growth	Program & Other Changes	Cost of Operations FY 1995	Price Growth	Program & Other Changes	Cost of Operations FY 1996	Price Growth	Program & Other Changes	Cost of Operations FY 1997
Military Personnel Compensation	7,304	183	(140)	7,347	0	(728)	6,619	72	(136)	6,555
Civilian Personnel Compensation	599,831	8,836	89	608,756	19,029	(14,326)	613,459	19,420	(13,509)	619,370
Travel	6,067	69	(2,132)	4,004	56	(87)	3,973	56	(77)	3,952
Material & Supplies - Commercial	131,050	3,626	(12,325)	122,351	3,670	3,750	129,771	3,882	(8,392)	125,261
Material & Supplies - from DBOF	65,918	3,452	(5,615)	63,755	(490)	2,349	65,614	2,817	(113)	68,318
Other Intrafund (DBOF) Purchases	20,328	1,272	1,463	23,063	(958)	2,062	24,167	1,226	(1,046)	24,347
Transportation	784	22	362	1,168	58	25	1,251	38	(113)	1,176
Capital Investment Depreciation	55,144	0	(32,191)	22,953	0	(559)	22,394	0	(198)	22,196
Other Purchases	1,030,715	32,981	(138,268)	925,428	27,867	(116,203)	837,092	25,283	(40,982)	821,393
Total Operating Budget *	**1,917,141**	**50,441**	**(188,757)**	**1,778,825**	**49,232**	**(123,717)**	**1,704,340**	**52,794**	**(64,566)**	**1,692,568**

*Includes Reimbursements

000750

DEFENSE BUSINESS OPERATIONS FUND
BASE SUPPORT
NAVY PUBLIC WORKS CENTER

CHANGES IN THE COSTS OF OPERATIONS
(Dollars in Millions)

	Costs
FY 1994 Actual	1,917.1
FY 1995 Estimate in President's Budget:	1,838.6
Estimated Impact in FY 1995 of Actual FY 1994 Experience:	
Consolidated Area Telephone System Contract Buyout	(25.8)
PWC Guam Earthquake damage repairs	9.1
Pricing Adjustments:	
Pay Raise:	
FY 1995 Civilian Personnel pay raise change	4.3
Program Changes:	
Curtailment of PWC San Francisco Bay depreciation	(4.6)
Increase in workload associated with Base Closure/Realignment; Maintenance and Repair; Utilities Work; Environmental Clean Up and Compliance; and other Public Works support workload requirements	101.4
Transfer of operational responsibilities of long term housing at Mitchel Field and Manor in Long Island, New York to PWC Great Lakes	4.4
Other Changes:	
Remove "duplicate" costs for MRP (revised DFOF Policy)	(148.4)
Passenger carrying vehicles transferred to Other Procurement, Navy	(0.8)
Capital Procurement Program threshold change	3.3
Other	(3.4)
FY 1995 Current Estimate:	1,778.1

DEFENSE BUSINESS OPERATIONS FUND
BASE SUPPORT
NAVY PUBLIC WORKS CENTER

CHANGES IN THE COSTS OF OPERATIONS
(Dollars in Millions)

	Costs
FY 1995 Current Estimate:	1,778.1
Pricing Adjustments:	
Pay Raise:	
FY 1996 Civilian Personnel pay raise	14.9
Annualization of FY 1995 pay raise	4.1
Fuel	2.0
Materials & Supplies	1.2
General Purchases	27.0
Productivity Initiatives and Other Efficiencies:	(23.3)
Program Changes:	
Assumption of Government of Japan utility rebate	(21.4)
Phased closure of PWC San Francisco Bay due to Base Closure	(39.7)
Increased renovation, maintenance and repair, construction workload at PWC Washington associated with the move of the Naval Sea Systems Command Headquarters to White Oak, Maryland	4.7
PWC Guam Earthquake damage repairs completed to date	(4.0)
Increase of workload in environmental cleanup and compliance	1.7
Increased maintenance and repair workload associated with the implementation of BRAC decisions and anticipated customer orders	10.2
Telephone transfer to Naval Computer & Telecommunications Command (O&M, Navy funded)	(58.5)
Other Changes:	
Defense Finance and Accounting Service charges	6.9
Other	(3.0)
FY 1996 Estimate	1,704.3

DEFENSE BUSINESS OPERATIONS FUND
BASE SUPPORT
NAVY PUBLIC WORKS CENTER

CHANGES IN THE COSTS OF OPERATIONS
(Dollars in Millions)

	Costs
FY 1996 Estimate	1,704.3
Pricing Adjustments:	
Pay Raise:	
FY 1997 Civilian Personnel pay raise	14.5
Annualization of FY 1996 pay raise	4.9
Fuel	0.4
Materials & Supplies	6.3
General Purchases	26.6
Productivity Initiatives and Other Efficiencies:	(17.5)
Program Changes:	
Phased closure of PWC San Francisco Bay due to Base Closure	(31.9)
Workload decrease due to Defense downsizing and Base Closure	(14.1)
Continued increase in renovation, maintenance and repair, and construction workload at PWC Washington associated with the move of the Naval Sea System Command Headquaters to White Oak, Maryland	5.0
PWC Guam Earthquake damage repairs completed	(5.0)
Other Changes:	(2.5)
FY 1997 Estimate	1,692.6

BUSINESS AREA CAPITAL BUDGET SUMMARY
Component: Department of the Navy
Base Operations/Public Works Centers
Date: January 1995
($ in Millions)

LINE #	Item Description	FY 1994 $25k Threshold		FY 1995 $50K Threshold		FY 1996 $50K Threshold		FY 1997 $50K Threshold	
		Quant	Total Cost	Quant	Total Cost	Quant	Total Cost	Quant	Total Cost
0001	1a. Equipment-Non ADPE - Replacement - Productivity - New Mission >$500,000 Subtotal Equipment	0 0	0.000 0.000	0 0	0.000 0.000	0 0	0.000 0.000	1 1	0.854 0.854
	1b. Equipment -Non ADPE - Replacement - Productivity - New Mission Subtotal Equipment	351 351	20.194 20.194	116 116	7.400 7.400	190 190	16.006 16.006	163 163	15.454 15.454
0002	2. Minor Construction	88	7.864	56	6.900	50	8.559	47	7.237
0003	3. Equipment ADPE & Telecomm	58	2.589	0	0.000	13	0.847	16	1.062
0004	4. Software Development	8	0.690	6	0.400	6	0.413	3	0.200
	TOTAL	505	31.337	178	14.700	259	25.825	230	24.807

000754

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION ($ in Thousands)											A. FY 1996/1997 President's		
B. Department of the Navy/Base Operations/Public Works Centers				C. 0001 Equipment-Non ADPE Replacement > $500,000							D. Public Works Centers		
	FY 1994			FY 1995			FY 1996			FY 1997			
Element of Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	
Equipment Non-ADPE							0	0.00	0	1	854.00	854	
TOTAL								0.00	0		854.00	854	

Narrative Justification:

PWC San Diego currently has a 26 year old 70 ton crane truck in its inventory which has reached the point where frequency of breakdown, parts availability and high maintenance have restricted its availability to meet customer requirements. Replacement of this crane is essential to perform heavy lifts from pier side to berthed ships. Due to weight limits for the Naval Station San Diego piers other 90 and 100 ton cranes available in the PWC inventory cannot be utilized.

Demand for this type of lift capability is essential to meet fleet needs and provide service at the least cost to PWC customers. Due to the age of this equipment operation does not meet standards for safety in hazardous materials handling thus limiting workload applications. Further, the current crane has a 130 foot boom as compared to the requested 70 ton crane with a 240 foot boom. This new capability will permit the PWC to perform antennae work without leasing to meet customer demands. Costs to lease equipment with the longer boom exceed $100,000 annually over projected inhouse capability.

Failure to increase funding for this crane will result in increase cost to PWC customers and delayed achievement of budgeted cost improvements.

000755

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION ($ in Thousands)										A. FY 1996/1997 President's		
B. Department of the Navy/Base Operations/Public Works Centers				C. 0001 Equipment, Non-ADPE- Replacement						D. Public Works Centers		
	FY 1994			FY 1995			FY 1996			FY 1997		
Element of Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
Equipment Non-ADPE							190	84.24	16,006	163	94.81	15,454
TOTAL								84.24	16,006		94.81	15,454

Narrative Justification:

Equipment includes milling machines, band saws, sheet metal cutters/presses, welding machines, engine analyzers, material handling (i.e. fork lifts), car/truck washers, generators, and telephone switches. Civil Engineering Support Equipment (CESE) includes trucks, trailers, crawler cranes, crane trucks, backhoes, and other vehicles incident to public works transportation functions. Environmental and pollution compliance equipment includes environmental lab equipment, above ground fuel storage containment units, portable environmental monitoring units, portable emergency shower units, oil skimmers, spill containment booms and other equipment required to operate the PWC mission within state and federal environmental compliance standards. Administrative equipment includes automated filing systems, micro film/fiche readers, copiers and other administrative equipment incident to administrative functions.

PWC shop, CESE, environmental, and administrative equipment supports customer maintenance, repair, construction, utilities, and transportation requirements. Equipment purchases as budgeted will replace overaged as well as equipment beyond economical repair. This will reduce workload delays and equipment downtimes. Replacements will provide for stable equipment maintenance costs and effective environmental compliance which are directly related to units costs.

Expansions and newly formed Centers have increased total inventories by more than 32% and have significantly increased the average age of our equipment inventories. The average age of contributed vehicles is approximately twice the age of current PWC fleets. As such, procurement objectives have been established for each category to replace equipment within guidance and at an average rate of 800 items annually. Delays/reductions in requested authorization will result in lost budgeted cost improvements, resulting in higher unit costs to the customer.

007256

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION ($ in Thousands)										A. FY 1996/1997 President's		
B. Department of the Navy/Base Operations/Public Works Centers				C. 0002 Minor Construction						D. Public Works Centers		
	FY 1994			FY 1995			FY 1996			FY 1997		
Element of Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
Minor Const.							50	84.92	4,246	47	153.98	7,237
TOTAL								84.92	4,246		153.98	7,237

Narrative Justification:

Minor construction includes mission facilities and environmental projects to construct shelters for hazardous waste storage, environmental test labs, water/sewage pumping equipment, materials storage, security fencing/lighting, fire protection sprinkler systems, utilities control systems, paving, sludge drying beds, water lines, and other facilities in support of PWC products and services.

Construction projects as budgeted provide enhanced PWC shop and operational facilities which include safety, security and environmental compliance requirements. These projects will reduce operational hazards, stabilize maintenance costs and meet environmental standards which are directly related to unit costs.

Expansions and newly formed Centers have increased total facilities inventories by 34%. As such, construction objectives have been established to enhance and secure PWC facilities within guidance and at an average rate of 95 projects annually. Delays/reductions in requested authorizations will result in lost budgeted cost improvements, resulting in higher unit costs to the customer.

000757

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION ($ in Thousands)										A. FY 1996/1997 President's		
B. Department of the Navy/Base Operations/Public Works Centers				C. 0003 Equipment ADPE & Telecomm < $100K						D. Public Works Centers		
	FY 1994			FY 1995			FY 1996			FY 1997		
Element of Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
Equipment ADPE & Telecomm							11	56.09	617	15	57.47	862
TOTAL								56.09	617		57.47	862

Narrative Justification:

ADP equipment purchases represent microcomputers, microcomputer networks, high speed printers, minicomputers, file/com servers, reader/printers, CD-ROM image plotters, retrieval systems, local area networks, and other hardware/software in support of the PWC Management Information System (PWCMIS).

Information Management hardware/software directly supports PWCMIS and provides automated information support to the PWC and customers. The system consists of applications designed to fulfill the management requirements of commercial accounting, budget and cost; production management, which includes controls for the production workforce; and all categories of work from receipt to completion in the Planning, Maintenance, Utilities and Transportation Departments. Equipment purchases insupport of PWCMIS will replace overaged and obsolete equipment to ensure continuous system reliability and maintenance.

Expansions and newly formed Centers have increased total inventories significantly. As such, procurement objectives have been established to replace equipment within guidance and at an average rate of 70 items annually. Delays/reductions in requested authorizations will result in lost budgeted cost improvements, resulting in higher unit costs to the customer.

000738

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION ($ in Thousands)													A. FY 1996/1997 President's
B. Department of the Navy/Base Operations/Public Works Centers				C. 0003 ADPE & Telecomm > $100K						D. Public Works Centers			
	FY 1994			FY 1995			FY 1996			FY 1997			
Element of Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	
ADPE & Telecomm							2	115.00	230	1	200.00	200	
TOTAL								115.00	230		200.00	200	

Narrative Justification:

ADP equipment purchases over $100K represent a minicomputer and two network file and communication servers, in support of the PWC Management Information Systems (PWCMIS).

Information Management hardware directly supports PWCMIS and provides automated information support to the PWC and customers. The system consists of applications designed to fulfill the management requirements of commercial accounting, budget and cost; production management, which includes controls for the production workforce; and all categories of work from receipt to completion in the Planning, Maintenance, Utilities and Transportation Departments. Equipment purchases insupport of PWCMIS will replace overaged and obsolete equipment to ensure continuous system reliability and maintenance.

Expansions and newly formed Centers have increased total inventories significantly. As such, procurement objectives have been established to replace equipment within guidance and when they become uneconomical or cause delays in information process.
Delays and/or reductions in requested authorization will result in lost budgeted cost improvements, resulting in higher unit costs to the customer.

000759

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION ($ in Thousands)										A. FY 1996/1997 President's		
B. Department of the Navy/Base Operations/Public Works Centers				C. 0004 Software Development						D. Public Works Centers		
	FY 1994			FY 1995			FY 1996			FY 1997		
Element of Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
Software							6	68.83	413	3	66.67	200
TOTAL								68.83	413		66.67	200

Narrative Justification:

Software purchases reflect contractor assistance and support in developing customer information systems, emergency service systems, and geographics information systems. Also included are purchases of software applications program for the production system, environmental office, contract, engineering and material management system.

092000

FY 1995 CAPITAL PROGRAM RECONCILIATION

BUSINESS AREA: PUBLIC WORKS

There are no significant changes in the FY 1995 Capital Program since the FY 1995 President's Budget submission.

000761